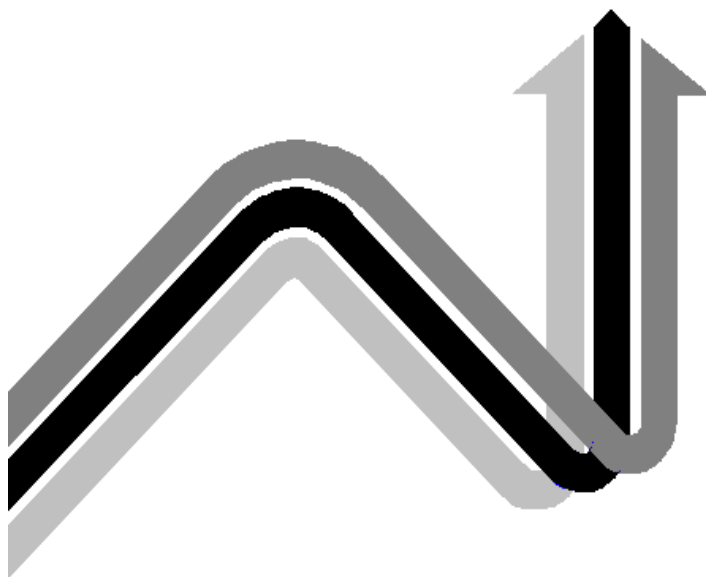


THEMATIC REVIEW OF THE TRANSITION FROM INITIAL EDUCATION TO WORKING LIFE



DENMARK

BACKGROUND REPORT

JUNE 1998

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CHAPTER 1: CONTEXTUAL AND INSTITUTIONAL FACTORS

1. Country. Population. Political and Administrative Structure

Country

Denmark is a small country, 43.000 square kilometres, not counting Greenland and the Faroe Islands, which have an extensive homerule. Denmark consists of one large peninsula, Jylland, with 24.000 square kilometres and more than 500 islands, the biggest five with a total area of 12.300 square kilometres. It is a country without mountains or high hills (the highest point in Denmark is less than 200 metres over sealevel). The soil is generally fertile, the subsurface in most of the country consisting of chalk.

The infrastructure is very well developed. Bridges, tunnels, railways, ferries or domestic airroutes connect most parts of the country.

Denmark is a founding member of UN and the Nordic Council/Nordic Council of Ministers. It has been a member of The Council of Europe and OECD from the beginning and became a member of the European Union in 1972, together with UK and Ireland.

Population

The country is quite densely populated, the total population being 5,2 million. The population is quite old, 20 per cent is over 60, 31 per cent below 25.

The birth rate has undergone fluctuations during the last fifty years. The table below illustrates the magnitude of the fluctuations hitherto as well as the projected size of a youth generation in the coming years.

Table 1.1

	Youth cohortes –1000 persons
1960	84,5
1965	77,9
1970	74,4
1975	73,7
1980	82,6
1985	72,1
1990	72,1
1995	61,1
1997	56,7
2000	56,1
2005	60,6
2010	70,8
2020	69,6

The major part of the population lives in towns or cities, just 15 per cent in the countryside. The population is compared to many other countries very homogenous, only 4,5 per cent have a foreign origin, many of them even coming from one of the other Nordic Countries.

Political and administrative structure

The electoral legislation in Denmark makes it very unlikely that one party will have an overall majority in parliament (The Folketing). Many governments are thus either coalition governments or they are in minority (or both). In spite of this Denmark has had rather stable political conditions for many years, political compromises being the usual way of adopting legislation. Within education the tradition is that legislation is carried through only when there is a rather wide majority for it.

Much of the political power in Denmark lies with the 14 counties and the 275 municipalities. They are governed by councils emanating from general elections.

The counties are responsible for the health service, for the main roads in the country, for the environment and for running the general upper secondary education (the responsibility for the pedagogical matters lies with the Ministry of Education).

The municipalities have wide powers within the social sector, in building matters, in maintaining roads, in environment administration and often in the provision of water and electricity. Within education the municipalities are responsible for the primary and lower secondary education. They own and run public schools and they are supervising the quality of the private schools. The power of the municipalities within education is only limited by the overall framework stipulated in the legislation and in executive orders.

The expenses of the municipalities and the counties are covered partly by block grants from the state and partly by taxes on property and income.

The size of the block grant to a county or a municipality is calculated on basis of a number of criteria like the area of the county or the municipality, the number of citizens, the number of elderly people, the number of children, the length of the roads etc.

The labour market policy and the vocational education is not within the direct domain of the counties and the municipalities. They participate, however, in the cooperation concerning the various measures aimed at fighting unemployment and marginalization from the labour market and in encouraging young people to enter an upper secondary education.

Labour market authorities

The main responsibility for the design of the labour market policy and for the administration of the labour market legislation lies with the Ministry of Labour. It comprises a.o. the legislation governing the system of collective bargaining and mediation, the administration and support of the unemployment insurance scheme, the administration and supervision of the working environment regulations, the various employment services and the adult vocational training.

The National Labour Market Authority, an agency under the Ministry of Labour, has the overall responsibility for implementing the labour market policies aimed at bringing the various groups of unemployed back into the labour market. The authority is assisted by the National Council for Employment, by 14 regional Labour Market Offices and a corresponding number of regional Labour Market Councils. Each of the regional labour market offices has a number of local offices. Members of the councils are the social partners and representatives for counties and the municipalities.

The work of the offices is often grouped into two categories:

- the permanent initiatives comprising the establishment of contact between jobseekers and employers lacking manpower, the advising of firms in matters concerning training of workers and the monitoring of the labour market in order to disclose and remedy imbalances between supply and demand of manpower, and
- initiatives aimed at activating the unemployed, trying to integrate them into the labour market. Among the activities in this group is economic support to enterprises employing adult apprentices and to job training in the public sector, information and guidance and support to unemployed trying to become selfemployed.

Labour Market Authorities has overall responsibility for the adult vocational training as well. In this work the authority is assisted by The National Council for Continued Training. This is a body composed of representatives of the social partners as well as of various authorities. The training programmes are designed by committees consisting of equal numbers of employers and employees. More than 50 committees are at present established.

The training of the unskilled and semiskilled workers takes place at 23 AMU-centers with a number of local units spread all over the country (AMU being the Danish acronym for Labour Market Training). Retraining and upgrading of skilled workers is most often conducted by the vocational colleges, belonging to the Ministry of Education. The activity is, however, funded by the Ministry of Labour. The AMU-centers are organized as independent institutions governed by a board composed of representatives of the social partners and the local authorities. They are financed fully by the state, funds for recurrent expenses being allocated in accordance with their level of activity. The total training activity at the AMU-centers is close to 400.000 participant weeks and the total expenditure approx. 1,5 billion DKK.

Vocational training authorities

The vocational training of young people is the responsibility of the Ministry of Education. In designing and implementing the national policy the ministry is assisted by the National Council for Vocational Education composed of representatives of the various national organisations of employers and employees and of the associations of local and regional authorities, teacher unions, headmaster-associations and various authorities.

Like in adult vocational training the social partners have a very important role in designing curricula and in controlling the quality of the education. Instrumental in this work are the trade committees, composed of an equal number of employers and employees. The curriculum and the other rules for a trade has to obtain the approval of the Ministry of Education, but it is seldom no more than a formality.

To exercise the quality control the social partners hold the examinations (the so-called journeymans tests). They furthermore issue the certificates and they approve firms as training places for apprentices. On the local level trade committees inspect the education in vocational colleges and assist them in keeping the contact with local enterprises and worker organisations.

2. Economy. Labour Market

Economy

Denmark has for some years had a rather strong economy following the implementation of the austerity programme in the late 80s when the deficit on the balance of payment and on the public budget had been out of hand for some years. Up till 1996 there was still a small deficit on the public budget, but the balance of payment has been in Denmark's favor for the most of the 90s. This latter fact is of particular importance to Denmark which has a very high volume of foreign trade, its size taken into consideration. Lately the surplus on the balance of payment has become worryingly low. The government has therefore recently introduced a number of measures aimed at curbing the private consumption.

The GDP per capita is among the highest in OECD (Only US, Switzerland and Japan have higher GDP's) and the growth rate has been between 3 and 3,4 per cent during the last three years.

Like the other Nordic Countries Denmark has a major public sector and a well developed welfare system, including free medical care (with a few exceptions), education and a generous social security system. As a consequence the taxburden in Denmark is among the highest in OECD, about 50 per cent of GDP.

The workforce

The unemployment has been falling much since 1993, from around 12 per cent in 1993 to around 7,5 per cent in 1997. This development is partly due to an improvement in the economic situation in Denmark, partly to an increase in the number of participants in various activities like f.i. paid leave schemes and early retirement arrangements. There have been only modest fluctuations in the size of the workforce in the period. By the end of 1997 it was 2.883.000 persons, not including 229.000 persons participating in various labour market activities. The public sector is, as mentioned above, quite big. Out of the total employment nearly 44 per cent is working in the public sector. The number of small firms is rather high in Denmark, only a handful of enterprises employ more than 5.000 workers. More than 25 per cent of the

workforce are employed in enterprises with less than 50 workers. The percentage of women in the workforce is very high in Denmark, in 1996 48 per cent of the workforce were women. Due to the various schemes aimed at encouraging workers to retire or to take a leave of absence the proportion of women in the workforce has, however, been declining lately.

The composition of the workforce according to branches shows that during the 90s there has been a small decrease in the number of persons working in agriculture, and a growth in the employment within the service trades and the public sector. The building trades have had a minor growth, while the development in manufacturing industries shows decrease in some of the years and growth in others. Forecasts for the coming years predict a modest growth in all branches, except agriculture. At present the distribution of the employment by sector is the following:

Table 1.2. Employment by Sector 1995

	Percentage
Agriculture etc.	5
Manufacturing	19
Construction	5
Trade, Restaurants, Hotels	17
Finance	11
Education and Research	7
Social and Health Services	16
Other Services	13
Not stated	1
Total	100

The labour market

Two features are characteristic for the Danish labour market

- A rather high percentage of the workforce and of the employers are organised in labour unions and employers federations. Within the private sector about 80 per cent of the workforce is organized. Within the public sector the figure is close to 100.
- Salary and employment conditions are mostly regulated through collective agreements. Very little legislation is applied.

The main organisations on the employers side are The Danish Employers Confederation (DA) and the Confederation of Employers in Agriculture (SALA) in the private sector. Within the public sector it is The Association of County Councils in Denmark, The National Association of Local Authorities and the State.

On the employee side there are three main organisations: The Danish Federation of Trade Unions (LO), The Salaried Employees and Civil Servants Confederation (FTF) and The Danish Confederation of Professional Associations (AC). The majority of the unions belong to LO.

Basic principles regulating the relations between employers and workers organized in DA and LO are laid down in the General Agreement from 1973. This agreement establish a.o.

- The mutual recognition of the organisations on both sides

- The right of the employer to direct and organize the work
- The right to organize strikes, lock-outs and blockades
- A duty to refrain from strikes, lock-out etc., when a collective agreement is entered into.

The General Agreement furthermore contains rules on how breaches in agreement should be handled, on how to terminate an agreement, rules on dismissal of workers and on protection of shop stewards etc.

Most of the unions in Denmark has been established along crafts- and tradelines, not according to industries. After the second world war formalised cooperation between different unions within the same industrial field like f.i. the metal industries, have been formed.

The collective agreements are normally of a duration of two years. Each of them covers a major area like f.i. the manufacturing industries, the building trades, administration and retail etc. Voting on new agreements are combined according to certain rules, implying that an aggregated majority of yes votes is necessary to make the agreements valid.

The unemployment insurance is not administered by the unions, but independent associations. Members of these associations obtain unemployment benefits according to certain rules. The benefits are financed by a special fund, the means of which come from contributions from employers and workers and by subsidies from the government.

The member contribution amounts to approx. 4000 DKK per year.

The associations also administer the special senior salary arrangements according to which workers as well as self-employed can retire at the age of 60.

The unions and the federation of employers have a number of other tasks than negotiating salaries and working conditions. They are, as mentioned above, f.i. very important actors in the governing of vocational education and of labour market training.

3. Education

History and early development

Compulsory Education

Education aimed at the population as such has a long history in Denmark. The quality of the teaching was, however, for a very long time quite low.

Improvement was introduced in the late 17th century and in the beginning of the 18th century, as the king and certain noblemen established the first organized school systems on their estates.

In 1739 a general compulsory education was introduced. It was, however, not until 1814 that a proper legislation came into effect introducing a seven year compulsory education (the "Folkeskole") for all children. This legislation underwent of course several major changes during the years; however, the seven years' limit remained until 1975, when it was extended to the present nine years with a voluntary 10th year

on top. This was more or less an adaptation to reality, as the development long ago had resulted in nearly all pupils following education for eight or nine years.

Other aspects of the 1975 legislation was of much greater importance. A major change was f.i. the introduction of a comprehensive structure, covering all nine years. Later reforms reinforced the unity character by gradually abolishing all streaming in the upper classes.

Upper secondary education

Traditionally the upper secondary education, or as it is called in Denmark: the youth education, has been a multi-tier system.

The three major streams were the academic stream (gymnasiet), the vocational training system (erhvervsuddannelserne), and the education and training of farmers (landbrugsskolerne).

They traditionally had very little in common, the vocational system even being administrated separately by the Ministry of Industry and Commerce until 1961.

The gymnasium originally prepared solely for entry to universities and other institutions of higher learning, the vocational training provided skilled workers for industry, commerce and administration, and the farmer schools catered for the young people preparing to run one of the many rather small farms in Denmark.

Their historical origins were also entirely different. The gymnasia had their origin in the medieval "cathedral schools".

The vocational schools started as evening and sunday schools, giving apprentices working for master-craftsmen and retailers a general education, supplementing what they had learned in the compulsory school. Most of these vocational schools were established in the period from 1830 to 1880.

Farmer schools

The farmer schools originated from the Danish Folk High School movement, which was part of a spiritual and political revival among farmers in the middle of the 19th century, when Denmark got its first democratic constitution. They were boarding schools, traditionally offering 6 to 9 months all round courses for young people in their early 20s.

Tertiary education

The first, and for centuries the only university in present Denmark, was established in Copenhagen in 1479. The structure and the teaching was much the same as in other European universities at that time, but in contrast to most of these the University of Copenhagen was for many years small and poorly endowed. Many Danish students therefore continued to go to bigger and better universities, mainly in France, Germany and Italy. A royal decree tried in the 16th century to stem that development by stating that Danish students were not allowed to study outside Denmark before they had studied two years at the University of Copenhagen. This had, however, very little effect and during the years of reformation the activities of the university came to a complete stop.

Gradually during the following centuries the university developed. The teaching and research improved as several scholars of international reputation taught there.

In the 19th century a number of university-level institutions for special studies like engineering, pharmacy, dentistry, agriculture and veterinary science were established.

The first non-university tertiary education was the teacher training established as a consequence of the introduction of compulsory education in 1814. The training took place at a number of institutions often in rural environments, thus being the first kind of tertiary education established outside the capital.

Not until the beginning of the 20th century was the next major type of non-university tertiary education established: the engineering colleges (Teknika), modelled after the German Ingeniør Scholen. They were established in a number of relatively large cities as well as in Copenhagen. They soon became a major contribution to the development of Danish industry and construction enterprises by providing a considerable number of professional engineers with a practical background as certified skilled workers.

Not until the 1920s was the second Danish University established. It was established in Århus on private initiative, receiving only modest state support for some years, and remaining an independent institution until the 1970s.

The expansion in the 60s of the number of young people passing the baccalaureate led in the following years to the establishment of three new universities introducing new structures in the studies and developing alternative didactics.

Simultaneously the capacity of the teacher training and of the engineering colleges increased.

Furthermore the modest number of short cycle tertiary programs training and educating senior technicians were augmented and developed. Most of these programs, lasting 18 months to 2½ years, took place at the vocational colleges.

Development in the 60s and 70s

The development within the education system took place in a rather sedate pace until late in the 1950s. At that time the Danish society began to undergo rapid and fundamental changes. From being a relatively poor country with farming as the dominant occupation, Denmark developed during the 60s and 70s into a modern industrialized society with a rapidly growing, widespread wealth.

One of the consequences of this development was very rapid changes in education and training. The parents could now afford to let their children have an upper secondary education. The number of "studerende" (young people who have passed the baccalaureate) thus rose from appr. 7 per cent of a youth generation in 1960 to more than 14 per cent in 1970, and the student population in tertiary education increased correspondingly.

Vocational education

This development alarmed the industry and commerce. They needed many more skilled workers than before, but many of the young people who formerly went into an apprenticeship now went into the gymnasium. The demands for a reform of the vocational training system, making it more attractive for the young people, became rather urgent.

In spite of the popularity of the gymnasium, only few advocated the solution, Sweden introduced in 1962: the comprehensive upper secondary school. Instead Denmark chose drastic changes in the apprenticeship system. A sandwich system was introduced gradually from 1956 to 1964: each year the apprentices now spent a period of about 10 weeks at a full-time school learning the theory of their trade and sometimes even the practical skills, they could not learn at the enterprises.

This reform, although being a revolution in the way to train skilled workers, was, however, not sufficient to stem the increase in the number of young people going into the gymnasium. Furthermore many of those who chose an apprenticeship dropped out after only a few months. Studies showed that one of the main reasons was that the guidance given in the schools and by the labour market authorities was not reflecting the realities of the world of work.

This gave rise to considerable improvements in the vocational guidance in schools and at the labour market offices.

Simultaneously experiments began in the late 60s with a new vocational training system (EFG), in which the students spent the first year at a vocational school, experiencing the content of all the trades within one of eight main fields (metal, building, commerce, food processing etc.) before choosing which trade to become an apprentice in.

This system was established at a permanent basis and was further developed during the 70s, parallel with a continuous modernization of the traditional apprentice system until they were merged into one system in 1991.

The Gymnasium

The growing number of students in the gymnasium made it necessary also to rethink its role. From being solely an introduction to higher education it gradually became the branch of the youth education system which also gives a general introduction to adult life.

Due to the growth in the participation in upper secondary education the traditional pathways for young people to f.i. teacher training colleges through practical experience and special admission-courses became obsolete. In the late 60s a new two-year general education stream was therefore established, mainly for students who besides having completed 10 years in school had obtained some experience outside the education system.

This education program (HF) now gives access to tertiary education, in certain fields after being supplemented by specific courses.

The Farmer schools

The farmer schools did in the beginning of this period not undergo similar drastic changes. Most of their clientele was still young people who aimed at having their own farm, and they were, in spite of the changes in agriculture, still in farming. Those who left farming for industry these years were the hired labourers who were squeezed out by the mechanization in agriculture and they were traditionally a minority among the students at the farmer schools. Not until the number of independent farms began dropping drastically and the specialization at the farms started gaining momentum in the 70'es did the farmer schools undergo drastic changes in the basic structure and in the number of students.

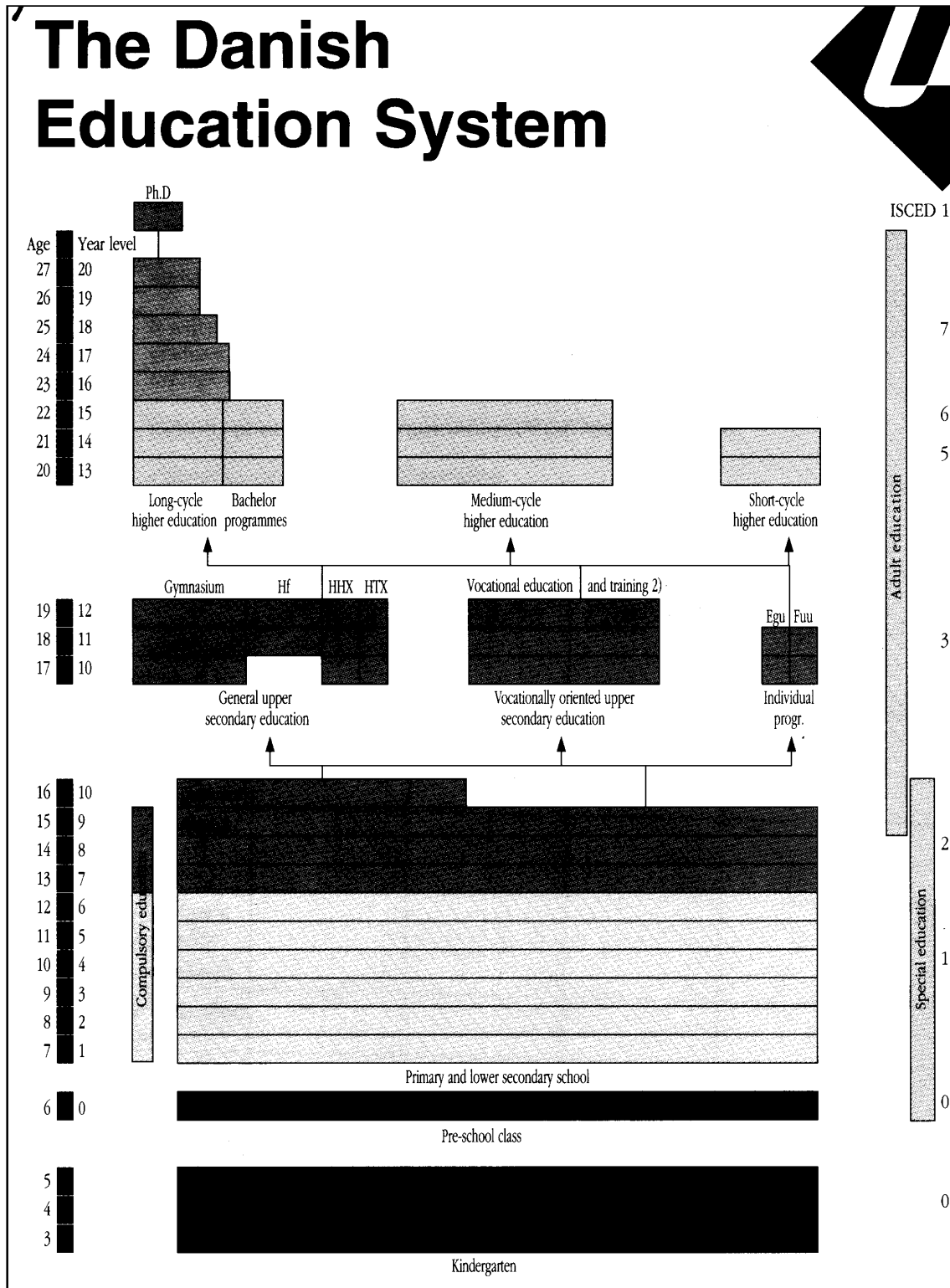
Discussions about fundamental reforms

The decisions on the major changes in the youth education system did not bring a halt to discussions about reforms of a more distant future. Ideas about a compulsory twelve year comprehensive school were aired again together with plans for major changes in the tertiary education system, introducing relatively short programmes to relieve the pressure on the long university studies.

Gradually, however, the energy in the late 70s and the 80s was concentrated on finding resources for further increases in the capacity of the efg system and in higher education, in fighting youth unemployment and by the end of the period, in improving the quality of the teaching in all types of schools and learning institutions.

Present system

The figure below illustrates the Danish education system as it stands today



As it may be seen, primary education starts rather late in Denmark compared to many other countries. This is a tradition going back to the time when Denmark was a rural community. It has to be added, however, that the major part of Danish young children now spend most of their days in day-nurseries or kindergarten. Formerly a very strict separation between the aims of the compulsory education and that of the kindergarten was observed, not allowing kindergarten to undertake any teaching. Lately these sharp boundaries have been blurred by the introduction of various transition measures.

It may furthermore be noticed that the number of years spent in education, if you graduate from tertiary education, is quite high compared to many other countries. In average a young Dane will spend more than 16 years in education.

Compulsory education (the Folkeskole)

The latest revision in legislation resulted in the 1994 Folkeskole Act. Most of the teaching takes place in the municipal Folkeskole, although private schools have been receiving a growing number of pupils during the last decade, now providing primary and lower secondary education for approx. 15 per cent of the total number of pupils. The private schools receive a rather generous state subsidy amounting to more than 80 per cent of recurrent expenses.

The costs of the Folkeskole are carried by the municipalities.

The Folkeskole has according to the legislation two objectives:

- to provide children with subject related qualifications
- to prepare the pupils for their role as citizens in a democratic society.

One of the main features of the present legislation is that the departure of teaching is taken in the individual pupils' abilities. The pupils normally remain together in the same class (average class size 18,6 pupils) throughout all nine years of compulsory education, often with the same "class teacher" for the greater part of the time. The "class teacher" is the teacher who is responsible for the "social life" of the class and the main responsible for the cooperation among the teachers. The class teacher normally teaches one or two of the main subjects in the curriculum in order to obtain as intimate knowledge of each pupil as possible.

Before entering the first class in the nine years' compulsory education pupils may participate in a one year pre-school class and they may continue in a 10th year. In the 10th year the pupils have rather many options. Nearly all children attend the pre-school classes and 60 per cent of the pupils in 9th year take a 10th year as well.

The primary and lower secondary education is rather expensive compared to many other countries. In 1996 the public expenses were 3,1 per cent of GDP (the total expenditure on education was 7,2 per cent of GDP). The number of schools is (1993) 2.326 out of which 1,680 are municipal "Folkeskoler". The average size of the public schools is 302 pupils while the average size of private schools is 160 pupils.

Table 1.3. Preprimary, Primary and Lower Second Education

	1990/91	1993/94	1994/95	1995/96	1996/97
Number of pupils (1000 persons)	632	606	606	606	-
Number of pupils receiving special education (1000 persons)	-	-	64,6	-	-
Number of bilingual pupils (1000 persons)	22,6	28,9	30,6	35,9	39,4
Number of schools	2402	2409	2407	2407	-
Folkeskoler	1779	1761	1758	1756	1754
Private schools	623	648	649	651	-
Number of teachers (1000 persons)	62	61	-	-	-
Pupil/teacher ratio					
Folkeskole	10,1	10,4	-	10,1	-
Private schools	11,8	11,5	-	-	-
Number of pupils per class					
Folkeskole	18,2	18,4	18,5	18,5	18,6
Private schools	15,9	15,5	-	-	-
Expenditure (Billion DKK) 1997-prices	29,7	30,6	31,4	31,0*	32,4*

For further details see: Facts and Figures. Education Indicators. Denmark 1996

* Preliminary figures

Upper secondary education

The upper secondary education as it stands now is structured into three major branches:

- 1) Vocational education and training
 - a) industry and crafts (EUD)
 - b) commercial and administrative (EUD)
 - c) social and health (SOSU)
 - d) agriculture
- 2) Vocationally oriented "gymnasia"
 - a) technical (HTX)
 - b) commercial and administrative (HHX)
- 3) Academically oriented "gymnasia"
 - a) mathematics
 - b) modern languages
 - c) higher preparatory examination (HF).

The upper secondary education programmes are primarily directed at young people. But adults, who, for some reason or other, did not continue in the education system after the compulsory education, when they

were young, have the possibility to follow a programme at youth education level - if necessary, in programmes which are specially organized for adults.

The volume of the upper secondary education programmes

In the school year 1995/96, well over 240,000 persons were enrolled in an upper secondary education programme. This corresponds to approximately four youth cohorts.

Of all students about half are enrolled in a vocational education programme, and just under half are enrolled in a "gymnasium" education programme. The remainder were enrolled in one of the new individual programmes: the EGU (vocational basic training) programme or the FUU (open youth education) programme, or in a number of minor special programmes.

The vocational education programmes cater for less students than they did ten years ago. At the same time, there has been a shift between the programmes. Both the technical and the commercial/administrative programmes have seen a reduction in their student population, whereas the social and health training programmes have increased their volume (this is, however, mainly due to the establishment of new programmes).

For many years, the traditional gymnasium has admitted an increasing proportion of the youth cohorts. The latest growth in the gymnasium sector is however primarily due to the fact that more young people go for the vocationally oriented gymnasium. 58 per cent of those who enrolled in the general gymnasium went to the mathematics line. The HF caters for 6% of the students.

Table 1.4. Upper Secondary Education

	1990/91	1993/94	1994/95	1995/96
Number of students (1000 persons)				
General	99	103	103	108
Vocational	124	125	123	122
Number of schools	358	384	385	385
Number of teachers (1000 teachers full-time equivalents)				
General	8	9	10	11
Vocational	11	11	11	11
Students/teacher ratio				
General	9,5	8,2		
Vocational/commercial	12,5	12,6	-	-
Vocational/technical	8,6	8,6		
Number of students per class				
General	-	-	-	-
Expenditure (DKK mill.) 1994-prices				
General	4001	4220	4221	-
Vocational	4346	4704	4541	
Prices per graduate (1000 DKK)				
General 3y	-	-	203	-
General 2y			129	
HHX			213	
HTX			306	

For further details see: Facts and Figures. Education Indicators. Denmark 1996

Vocational education and training

The technical and commercial vocational education and training programmes

Throughout all the reforms of the vocational education the principle of apprenticeship has been preserved. Even today it is possible to enter a vocational education and training programme in two different ways: either by enrolling in a programme and commencing at a school (through the so-called 2nd school period - the 1st school period being a voluntary, flexible orientation course), or by beginning with the practical training in an enterprise, which has agreed to employ the young person as an apprentice.

Apart from a few rather small programmes, there is free access to all vocational education and training programmes.

Entering by the way of practical training in an enterprise is used by approx. 30% of the total number of apprentices. These apprentices have direct access to the school part of the programme. Apprentices, who commence the programme at school must either obtain a training contract with an employer or accept an offer of a school-based practical training.

There are approx. 85 vocational education and training programmes - the vast majority of which are technical programmes - with nearly 200 specialities. The programmes are of a duration of normally 3 or 4 years. The education and training at school alternates with training in an enterprise.

A vocational education and training programme is normally completed with a vocational test, the so-called journeyman's test. The test may be written, oral, practical and/or a project assignment. The tests are assessed by the teacher, who is also the examiner, and two external examiners, the so-called inspecting masters appointed by the social partners. In some programmes, the journeyman's test takes place in the enterprise in the presence of the inspecting masters. In both cases, the trade committee issues a journeyman's certificate.

In the vocational education and training programmes, apprentices are paid a salary by the employer, with whom they have entered into a training agreement. Students, who undergo school-based practical training, receive a remuneration corresponding to the salary received by apprentices in enterprises.

The salaries of the apprentices are, like all other wages, part of the agreements between employers organisations and the unions. They increase as the apprentice progresses in the education. Below follow a couple of examples of salaries for apprentices compared to those of workers below 18 years of age and of adult workers:

Table 1.5

	Salaries (1998)					
	Manufacturing Industries		Retailtrades		Building Industry (Wood)	
	DKK per hour	Percentage of adult workers	DKK per month	Percentage of adult workers	DKK per hour	Percentage of adult workers
Adults	78,40	100,0	13200	100,0	84,65	100,0
Workers under 18	44,50	56,8	6250	47,3	-	-
Apprentices 1. Stage	36,00	45,9	6300	47,7	35,20	41,6
Apprentices 2. Stage	40,85	52,1	7100	53,8	42,75	50,5
Apprentices 3. Stage	45,00	57,4	7500	56,8	50,75	60,0
Apprentices 4. Stage	53,5	68,2	7900	59,8	61,60	72,8

The social and health training programmes

The social and health training programmes constitute a relatively new offer. It consists of three programmes, i.e. the programmes leading to qualifications as social and health service helper, as a social and health care assistant and a basic pedagogical training programme. The programmes are of a duration of between 1 and 1½ years. The programmes have replaced a number of former small specialist programmes.

Like the technical and commercial vocational education and training programmes, they are alternance training programmes. It is however an admission requirement that the student has entered into a training

agreement. The dimensioning of the programmes thus lies with the municipalities and counties. The students receive a salary during the programme.

Many of the students in these programmes are adults. For those who have completed one of the former basic programmes in this field special upgrading courses have been established.

Other Vocational education programmes

Besides the mainstream vocational programmes there are a number of programmes aiming at specific occupations or functions, f.i. as policeman, prison guard, railway employee etc. Most of these courses are post secondary courses assuming that the students have prior secondary education and experience.

Vocational basic training (EGU) and open youth education (FUU)

The EGU is directed at less academically minded young people. It is the aim to get these young people started with an education, which may motivate them for further learning. It is the municipalities and the vocational colleges which, on the basis of the young person's prerequisites, needs and demands, compose the course, which may be of a duration of between 1½ and 3 years. The point of departure of an EGU-course is the practical work in an enterprise, but between 20 and 40 weeks must be in the form of education at a school.

The open youth education programme (FUU) - is an individualised course of education for young people who do not wish to use the traditional youth education programmes. The programme, which is of 2 years' duration, aims at an all-round personal development based on the young person's own interests. Many of the courses taken during the programme are within aesthetic/creative and pedagogical fields.

Adults

Adults who want to become skilled workers may enter into an apprenticeship contract with an employer on special conditions. The duration of the apprenticeship will be shorter than for young people, credits for prior education, skills and experience being deducted. The length of time deducted is decided upon by the trade committee and the college in question. If the adult apprentice receive the minimum wage for adults or more the employer will receive rather generous subsidies covering a major part of the salary costs. The employer will receive rather generous subsidies covering af major part of the salary costs. The colleges which train the adults receive extra funds as well. The education at colleges takes place either in separate classes or together with young apprentices, depending on the length and type of programme the adult person has to follow. In 1997 more than 6000 new apprenticeship contracts were entered into by adults (corresponding to 19 per cent of all new contracts).

The general upper secondary education programmes

Denmark has two general upper secondary education programmes, leading to the upper secondary school leaving examination (studentereksamen) and the higher preparatory examination (HF), respectively. These programmes can be followed at Gymnasia, at adult upper secondary level courses, at HF-course establishments as well as adult education centres (VUC).

The upper secondary school leaving examination

The Gymnasium offers a general and academically oriented instruction, which is completed by the upper secondary school leaving examination (studentereksamen). It is a three-year programme, which is divided into two lines: a languages and a mathematics line. The upper secondary school leaving examination can also be taken at a two-year adult upper secondary level course.

There is free intake to the Gymnasium for qualified applicants. In order to meet the qualification requirements, the applicant must have chosen certain subjects and passed certain examinations in the basic school. Moreover, the folkeskole makes an assessment of aptitude. Ultimately, it is, however, the receiving gymnasium, which decides whether the applicant can be admitted immediately after or after having passed an admission test.

The Higher Preparatory Examination - HF

The admission requirement for the HF is the completion of the 10th form of the Folkeskole. The HF is a two-year course, which qualifies for admission to higher education.

The vocationally oriented upper secondary education

Denmark has two such programmes: the higher commercial examination programme (HHX) and the higher technical examination programme (HTX). Common to both programmes is that they are offered at vocational colleges, the HHX at business colleges and the HTX at technical colleges - and that they offer a wide range of vocationally oriented subjects in addition to the general subjects.

The higher commercial examination programme - the HHX

The HHX-programme dates back to the end of the last century and lived a quiet life for more than half a century with a limited number of students, the majority of which had several years of experience in business. It was not till 1975 that the growth started for real.

In step with the growth and the general development of society, the programme was modified and gradually became an upper secondary education programme which was preparing for higher education studies on a par with the traditional Gymnasium as well as forming a basis for a career in business.

From 1995, the programme was extended to 3 years with admission directly from the 9th form of the compulsory education, and at the same time the upper secondary education aim of the programme was made more distinct. There is still a one-year programme for students who have completed one of the general upper secondary education programmes and who want to pursue a career in business.

The higher technical examination programme - the HTX

The HTX-programme is the youngest of the vocational oriented upper secondary education programme. It was started as an experimental programme in 1982 to give more young people possibilities of further studies in continuation of the basic year of the basic vocational education and training programme (EFG) and create a new direct and relevant route into the engineering diploma programmes and the short-cycle higher technical education programmes.

It is a characteristic of the programme that it combines theoretical education and workshop training, particularly within new technology and technical subjects.

From 1995, the programme was extended to 3 years with admission directly from the 9th form of the compulsory education, and at the same time the upper secondary education aim of the programme was made more distinct.

Table 1.6. HHX and HTX

	1990/91	1993/94	1994/95	1995/96
Number of students				
HHX	21090	22778	21279	27795
HTX	2367	3775	5729	6262

Tertiary education

Tertiary education in Denmark is grouped into three categories:

- Short cycle education of 1 to 2½ years' duration, typically for people having completed a vocational education programme. Most of this type of programmes take place at vocational colleges. They lead to qualifications such as building technician, electronics technician, laboratory technician, market economist etc. The curricula are determined by the Ministry of Education, which also controls the final examinations.
- Medium-term programmes normally take 3 to 4 years. They lead to qualifications as teacher in compulsory education, journalist, social worker, nurse, librarian, midwife, business economist, engineer etc. Most of the programmes take place at specialized institutions, some of them in rural areas or in provincial towns. The content of education is regulated either directly by law or by executive orders issued by the Ministry of Education. The admission requirements are either a general upper secondary education or for some, a certain vocational education background.
- The long term education takes place at one of the five universities or at one of the "one-faculty universities" for f.i. pharmacy, engineering etc., being characterized by also undertaking research as a main activity.

The programmes at these institutions were traditionally one degree programmes lasting 5 to 8 years leading to a so-called "kandidat" degree, equivalent to a masters degree.

In 1992, however, the three years' bachelor degree system was introduced followed by a two years' masters degree programme and a three years' Ph.D. programme. This structure is now introduced in social sciences, humanities, law, natural sciences etc., while the traditional structure is prevailing in medicine, architecture, medicine etc.

Table 1.7. Tertiary Education

	1990/91	1993/94	1994/95	1995/96
Number of students (1000 persons)				
short cycle	12343	17296	16866	16977
medium cycle	74272	81643	85923	93330
long cycle	59492	58424	59315	60871
New entrants (1000 persons)				
short cycle	7081	9091	9051	8477
medium cycle	27469	28816	30843	31347
long cycle	12354	12057	13308	13185
Number of teachers (1000 teacher full-time equivalents)	9	8	8,6	9,3
Expenditure 1994 prices (million DKK)				
Universities	4987	5078	5297	
Teacher training inst.	925	817	897	
Other higher inst.	842	837	861	

For further details see: Facts and Figures. Educational Indicators. Denmark 1996.

Adult education

Denmark has a long and strong tradition of general adult education, the major part of it based on public funding. Some of the courses lead to the same qualifications as in education for young people like f.i. the final examinations at the end of compulsory education or a final examination in one or more subjects in upper secondary education. Other courses are general leisure time courses, non residential folk high school courses for unemployed or one semester residential courses at Folk High Schools.

Vocationally oriented adult education and training mainly takes place at the Labour Market Training Centers (AMUs) financed by the Ministry of Labour. Some of them, specialized in small trades, are residential institutions. Their history goes back to the 30s with its rampant unemployment. The centers undertake a wide variety of courses specially designed for particular groups like young unemployed women and elder workers, but their main activity is training and retraining for unskilled or semi-skilled workers, employed as well as unemployed, and directed towards specific trades and professions.

Retraining and upgrading of skilled workers mostly takes place at vocational colleges under the realm of the Ministry of Education, but financed by the Ministry of Labour.

The planning, development and adaptation of the training programmes are taking place in close cooperation between the public authorities and the social partners.

The centers offer various types of training programmes, some of them giving formal competence. Such courses normally last 1 to 3 weeks containing practical as well as teoretical instruction and sometimes supplementary lessons in general subjects like Danish and arithmetic.

Another type of training programmes is the so-called integrated training. The length varies from 6 weeks to 18 months. The curricula include vocational training subjects, practical work experience as well as general education subjects, often at upper secondary level.

The centers furthermore offer courses intended for the participants to identify their competence and qualifications with a view to subsequent participation in a vocational training course. Finally, the centers arrange courses oriented towards work in a specific enterprise.

Leisure time activities

The boundaries between leisure time activities and the fields of education and learning are often blurred, as several kinds of leisure time activities contain elements of learning or education.

In Denmark this is more obvious than in many other countries, due to the "folkeoplysning" tradition (literally translated folkeoplysning means: "enlightenment of the general public"), which covers a wide range of activities from general adult education to participation in organisations within politics, religion, theatre, nature etc. All these activities receive a rather generous public support regulated in a special legislation.

In 1996 1,9 mio. participants were listed, out of which 59,3 per cent were under 25. On an international scale this brings Danish young people near the top.

The European Commission has published the results of a survey conducted in 1997 on the participation of young people in the European Union in various kinds of organisations (The Young Europeans. Eurobarometer 47,2). The survey showed a strikingly different behaviour in this field among young people in EU. While more than three fourth of all young people in Sweden, Denmark and the Netherlands participate in at least one organisation, it is less than 40 per cent in Greece and Ireland and less than 50 per cent in Belgium, France, Portugal and UK.

The most popular kind of organisation in Denmark is, not surprisingly, the sportsclubs, followed by political organisations and organisations for the protection of nature, animals and the environment.

Student economy

All initial education and the major part of adult education is free in Denmark. Furthermore the student support system is very well developed and rather generous. The major part of students income is generated from:

1) Wage earnings etc.:

- apprentices receiving wages during training in enterprises as well as when in school
- students working part-time and in weekends, often doing odd jobs
- workers compensated for loss of wages during participation in Labour market training
- workers preserving, fully or partly, their unemployment benefits during education and training

2) Student grants.

Re 1. Wage earnings

The wages of the apprentices are negotiated together with wages for fully trained workers at the national, collective bargaining taking place every second or third year. In average an apprentice receives a monthly salary beginning with approx. 6.000 DKK and ending with 8.000 DKK (corresponding to approx. 70 per cent of what a skilled worker may earn).

The enterprises are compensated for expenses to wages paid apprentices during their school periods from a fund, The Employers Apprentice Compensation Fund (AER) established in 1977. The income of the fund is generated by a levy on all salaries paid by public institutions as well as private enterprises. The fund is administered by the social partners.

The fund is now used also for subsidizing enterprises taking apprentices who are in a particular vulnerable situation and for financing school based practical training. In total the fund distributes more than 3 billion DKK per year.

The compensation for loss of wages and the unemployment benefits are paid by the offices normally taking care of unemployment benefits. The main part of the funding comes from the state.

Re 2. Student grants

Every Dane over the age of 18 is entitled to public support for his or her further education - regardless of social standing.

Support for students' living costs is awarded by the Danish Students' Grants and Loans Scheme (Danish acronym: SU), a system managed by the Danish Students' Grants and Loans Agency (SUstyrelsen) in collaboration with the educational institutions and under the auspices of the Ministry of Education.

There are three main support programmes:

- For people over 18 following a youth education programme, i.e. a general upper secondary, vocational upper secondary or vocational education and training programme. Students must attend classes, sit examinations and in other ways demonstrate that they are active in their educational programmes.

Students are eligible for support for any number of courses, with the exception of certain upper secondary programmes.

- For students over 18 enrolled in higher education courses. Every student enrolled in a higher education course is entitled to support corresponding to the prescribed duration of the chosen study, plus 12 months.
- For adults with little or no formal education after primary school. This programme (Danish acronym VUS) offers workers between the ages of 25 and 60 who are in employment the opportunity of enrolling in courses during working hours with little or no cuts in pay.

To be entitled to support the student must be a Danish citizen. Exceptions are made for refugees and foreign citizens having lived and worked in Denmark for some time.

Support is granted for studies abroad as well, if the courses of study meet the same conditions for recognition as Danish studies. For studies in the Nordic Countries support is awarded for the prescribed duration of the study plus 12 months, for studies in other countries the maximum period is four years.

The support is provided as grants and loans. Loans are directly linked to the students' eligibility for grants. Students entitled to grants are without any further eligibility rules, free to take up a student loan on favourable terms up to the maximum loan amount set each year. The support (grant plus loan) depends on need, i.e. the students' private earnings in addition to the support received. If their income exceeds DKK 56.892 in 1998, they must repay the surplus amount.

The support of students in higher education is given completely independent of parental income, but the amount depends on if the students live with their parents or not.

Students, 18 years old or elder, in lower secondary education as well as in general and vocational upper-secondary education are entitled to a basic grant, independent of parental income. Depending on their parents' income they are furthermore entitled to an allowance in addition to their basic grant on a sliding scale ending in a maximum grant. Students of 18-19 year of age are supported as if they are living with their parents whether they do so or not. Students living on their own may, however, apply for exemption on the grounds of e.g. long travel distance or long travel time between the school and their parents' home.

Students of 20 years or more in upper secondary education are supported independent of parental income, whether they live with their parents or not.

In 1998 the support is granted as follows:

Table 1.8.

Support amounts 1998	Grant ²	Loan	Total
	-----DKK per month -----		
18-19 year living with parents ¹			
- at parental income ³ > DKK 355 838	1 176	2 583	3 759
- at parental income ³ < DKK 203 638	1 852	1 907	3 759
18-19 year living on their own with exemption			
- at parental income ³ > DKK 355 838	2 351	3 225	5 576
- at parental income ³ < DKK 203 638	3 669	1 907	5 576
20 years or more			
- living with parents	1 852	1 907	3 759
- living on their own	3 669	1 907	5 576

1) and students living on their own without exemption

2) Before tax (grants are taxable income)

3) All parental income is reduced by DKK 21 614 per child below 18 years of age

Source: SUstyrelsen

The above amounts are paid out monthly, 12 months a year, as long as the student fulfils the requirements for receiving support. The loan proportion of the total support varies from approx. 68 per cent for the 18-19 year old student living with parents with high income, to approx. 34 per cent for most of the students living on their own.

Table 1.9. Support recipients in youth education and support expenditure 1996

	Support recipients			Expenditure			
	Total	Of these took up loans	As per cent total	Grants	Loans	Total	Loans as per cent of total
	---- persons ----		pct.	-----million DKK -----			pct.
Total	112 900	12 200	11	1 656	148	1 804	9
Of this:							
- 18-19 year	69 300	3 100	5	803	36	839	5
- 20 year or more	43 600	9 100	21	853	112	965	13
Of this:							
- living with parents	77 700	2 300	3	805	26	831	3
- living on their own	32 500	9 900	31	851	112	973	14

Source: SUstyrelsen

In 1996 the average grant amount awarded for students supported in youth education was DKK 14.046. As shown in the table above, only 11 per cent of all grant recipients in 1996 made use of their right to take up a student loan on top of their grant. Instead of loans, most of the grant recipients had income from gainful employment. Approx. 75 per cent had private earnings below DKK 55.000 in 1996, and approx. 25 per cent had greater private earnings.

69.300 support recipients - i.e. 61 per cent of the total number - was 18 and 19 years old. This corresponds to 54 per cent of the 18-19 year of age group in 1996. Approx. 70 per cent - or 77.700 supported recipients - was living with their parents.

In total more than 250.000 Danes benefit of the educational support scheme. The annual budget is over 7 billion DKK, corresponding to around 0,6 per cent of GDP. For upper secondary education the total expenditure in 1996 was 1,8 billion DKK corresponding to approx. 0,2 per cent of GDP.

CHAPTER 2: CLARIFICATION OF PERCEPTIONS

The traditional perception of transition.

For many years the major part of the transition from education to work took place after the 7 year compulsory school. As late as in 1975 the percentage of young people leaving education completely after compulsory education was more than 30, the majority of them finding work within agriculture or as unskilled workers in industry and construction trades, or, in growing numbers, being unemployed.

The next point of transition traditionally took place at the age of 19 or 20, when most apprentices had completed their training and those who had entered the gymnasium had obtained the baccalaureate. The percentage of young people having completed a vocational education and leaving education for the world of work was in the beginning of the 70s approx. 50. The remaining 20 per cent had obtained the baccalaureate and the majority of them continued in tertiary education.

The third point of entry into the world of work was after completion of tertiary education. It comprised a much smaller number of persons and in most cases took place over a period ranging from the age of 23 to 26, depending on the duration of the education.

The transition changes in the 70s

The changes in this picture during the last 20 years have been drastic, in particular in the transition from compulsory education to work. In 1985 the percentage leaving education completely after compulsory education had shrunk to 10 per cent and in 1995 it was even lower, 5 per cent.

The point of transition after the completion of the upper secondary education has not undergone similar drastic changes, although the educational background of these young people has changed as well. The percentage with vocational qualifications has diminished to 46 per cent in 1985 and to 40 per cent in 1995, out of which even a considerable number (one third) continue in tertiary education. At the same time, however, the share of young people from the general upper secondary education has increased to 26 per cent in 1985 and to just under 40 per cent in 1995. Out of these two thirds continue in tertiary education while the rest either look for a job or "go back" to vocational education.

Only rather few of the young men do their military service at this point of their education. Most of those who have to serve the compulsory nine months military service obtain a deferment until they have finished their education. Actually only one third of the 18 year old men are drafted. This is due to the increasing use of professional soldiers.

The substantial increase since 1975 in the percentage of young people entering an upper secondary education has required major investments in capacity. These investments were, however, not as profitable as could have been expected. For rather many years a considerable number of young people did not complete their upper secondary education. A detailed study of those born in 1965 and completing

compulsory education in 1980, shows f.i. that 25 per cent never completed more education than the compulsory. Many, 90 per cent of the age cohort, tried but 21 per cent of the age cohort gave up and 15 per cent changed study.

The transition picture thus changed during the late 70s and in the 80s. Fewer young people entered the labour market at the age of 15 or 16. However, rather many started working or became unemployed at age 17, 18 or 19 when they had left upper secondary education without any certificate. The reasons for this pattern were believed to be found in the lack of training places in enterprises, in insufficient guidance and in the economy of the young people.

Most energy was therefore spent in providing more training places in enterprises, in intensifying the guidance and in improving the economy of the students. For quite some time, however, with poor results.

The new perception of transition

It took some time to realize that other reasons for the high drop-out rates existed as well. The lack of attractiveness in the system f.i. As a consequence new policies were developed in the beginning of the 90s. The policy now became to diversify the upper secondary system in such a way that everybody could find something attractive in the system and to make the crossing from one stream to another easier.

The effects of these new policies have now begun to show. During the last five years the number of young people entering the labour market after dropping out of upper secondary education has been reduced. In 1995 the percentage going to the labour market without a complete education was down to 20 per cent and it is expected to be even lower now.

This does not imply that the overwhelming majority of young people gain their first experience at the labour market after having finished upper secondary education. A substantial number of young people now obtain their first connection to the labour market working part-time in evenings and during weekends performing all kinds of odd jobs. Surveys among students in general upper secondary education indicate that the number of students having part-time jobs is very high.

This way of gaining work experience is rather much like the one which has been common among students in tertiary education for rather many years.

Originally the students took up part-time work, mainly in the public sector, in order to finance their studies. Now, however, the motive is also to be able to demonstrate to prospective employers after graduations that they are able to get on in a workplace.

These trends implies that the transition policies have to be seen in a broader perspective, focusing very much on the process and on encouraging young people to get some kind of employment qualifications during upper secondary education or immediately thereafter.

The transition of the successful graduates from upper secondary education has not hithertoe demanded any particular attention. This has been taken as an indication of the upper secondary education system being in reasonable tune with the needs of the society. One group has, however, lately become the object for discussion: those graduates from general upper secondary education who join the labour market outright. Ordinarily they have no problems in finding a job. It is however claimed that these jobs do not make full use of their intellectual potentials, thus making the investment of the society in their education less profitable.

No policy remedying this has yet been formulated and solutions will probably have to be coordinated with those trying to improve the situation of the drop-out from the universities.

The implementation of transition policies requires in general a well functioning cooperation between education, social security and labourmarket. This goes in particular for those who, in spite of a very diversified upper secondary education system do not, for one reason or another, join some kind of education during their teens.

The main assistance to this group will have to be given by the social security and the labour market, f.i. by providing them with less demanding jobs. However, some of them may later demand some kind of education or training. It is important that education or labour market training is available to them whenever that happens. Part of the transition policies will thus have to be an appropriate reception system and programmes, flexible enough to cater for these people, maybe along the lines of the recent “Youth Effort” programme (see chapter 3).

CHAPTER 3: CONCERNS ABOUT TRANSITION PROCESSES AND OUTCOMES

Introduction

The two major concerns in education and training until the mid 70s were capacity and modernization. The major increase in baby cohorts in the 40s and in the inclination to continue in education and training beyond compulsory education caused by the growth in wealth in the 60s were very difficult to cope with. Manpower as well as resources were stretched nearly to the breaking point. Simultaneously, difficulties arose from the rapid transformation of the country from an economy dominated by agriculture to more diversified business conditions. This transformation required many new types of education and training, fundamental changes in teaching methods and restructuring of parts of the education system.

The fight against youth unemployment

When the effects of the first oil crisis began to be felt much of the focus in education policy shifted to fighting the growing youth unemployment, being a major issue in the latter half of the 70s until late in the 80s.

From the outset of the campaign against youth unemployment it was a firm belief that much of the growing youth unemployment was due to lack of qualifications among the young people.

The unemployment situation among young people therefore gave new impulses to a discussion which had been going on for some time about how to reduce the size of the so-called "remainder group", which was the expression used for those who did not complete any education or training after compulsory education.

In spite of substantial increases in the capacity of the youth education system, the size of this group only decreased marginally (from about 33 per cent in the beginning of the 70s to about 30 per cent ten years later).

The problem was to a major extent thought to be found within the youth education system, as about 85 per cent in 1980 and 93 per cent in 1990 of those leaving compulsory education actually began some kind of youth education or training. Many left however again particularly from the vocational colleges, after having passed the introductory course, because they did not succeed in finding a training place in an enterprise. In 1990 only 77 per cent of a youth cohort actually completed an upper secondary education.

Much effort was therefore concentrated on providing a sufficient number of such places. The measures applied included major campaigns by the authorities in cooperation with the social partners urging employers to increase the number of training places. As the number of places varied according to the economic outlook for the private sector, the state began offering substantial subsidies for each new training place. The result of this policy was, at least in periods, encouraging. The system has therefore in one form or the other and with varying intensity prevailed until 1995.

In some years during the 80s the number of places per year increased with 1/3 above the 1980-level. It was, however, not possible to maintain such a high level permanently, as the table below shows. Economic conditions and the subsidy system, which underwent frequent changes, still played a major role when decisions were taken in the enterprises on how many training places to provide.

New solutions had to be found. Several suggestions were put forward. Among them a school based practical training for those who did not obtain an ordinary training place in an enterprise was chosen. In 1992 a legislation regulating this activity was passed in parliament and from 1996 it has been a permanent part of the activities of the vocational colleges, granting the majority of vocational training students that they may complete their education even if they do not obtain an ordinary training place.

Table 3.1. Applicants for training places, number of training places in enterprises and number of students in school practice

	Number of training places	Number of unsuccessful applicants	Number of persons in school practice
1980	29.000 (est.)	*	
1985	40.000 (est)	*	
1990	34.421	*	
1992	31.509	9.653 ¹	
1994	36.734	9.298	
1995	39.600	7.600	
1997	31.425	7.227	3.187

¹ December 1992, in December 1993 the corresponding figure was 8.658

The lack of training places is not evenly distributed among branches. The table below shows the distribution of training places according to branches and indicates as well in which branches the problems are most pressing at the moment. It may also give some indication of the discrepancies between the demands of the young people and the kind of places supplied.

Table 3.2. Number of training contracts and of applicants according to trades spring 1998

	Number of training contracts 1 January – 30 April 1998	Number of applicants per 30 April 1998
Administration and Finance	1.282	796
Retail	1.195	281
Wholesale	190	38
Building	2.142	1.479
Printing	134	49
Metal	1.998	1.713
Agriculture	291	341
Transport	256	238
Food-production	1.401	840
Service	561	805
Technician	100	215
Total	9.550	6.795

Initiatives aimed at the weakest

Rather soon during the first years of fighting youth unemployment it had to be realized that an expansion of the ordinary education and training system was not sufficient. Major difficulties encountered those with a weak record from the compulsory schools and those with social problems.

A number of short training courses, mainly within the realm of the labour market training system, were established, but with limited effect.

A number of experimental programmes were therefore established for young people who were not ready to begin vocational training.

Some of these experimental programs were part of a European project subsidized by the EC. They were based on the philosophy that the students were taught only theoretical subjects to the extent, - and when - it was necessary in order to solve problems when performing real production.

These courses developed into a new form of schools, the Production Schools, established from 1978 and onwards, becoming a permanent part of the youth education system. The number of such schools is now 109 with a yearly turnover of 10.000 students spending in average 4 months each at school.

New opportunities in the 90s

After a period in the late 80s with relatively few initiatives several new attempts to improve the number of young people completing an upper secondary education were initiated in the beginning of the 90s. The initiatives were part of general strategy accepted by the majority of the actors on the educational scene according to which the best way to increase the proportion of young people getting 12 years of education is to increase the number of programs available, to increase the possibilities of choosing individual combinations of subjects and to make the scope of the various programs wider.

Part of the philosophy is also to introduce a teaching more attractive and relevant for the young people in order to reduce the temptation to drop out. In accordance with this philosophy the structure of the general gymnasium was changed from a three-stream structure to a more individualized set up.

To widen the possibilities for young people with a weak intellectual background to obtain some competences, relevant for the labour market, the Minister of Education in 1992 introduced a new vocational training program, called EGU (vocational basic training). The duration of the programme is two years (compared to a duration of three to four years for ordinary vocational training programs). It consists of training in enterprises alternating with periods at a vocational school. The emphasis is on practical training and aiming at relatively simple functions at the labour market.

The programme has recently been evaluated and a report published. The evaluation concludes that the programme in many ways has been a success. The intake is stable, around 1000 persons a year, coming from the intended target group. Two thirds of the students continue in education or obtain work. There are, however, still difficulties to overcome. First it is necessary to follow each student closely and guide them throughout the whole period. It is furthermore still an open question if the programmes should primarily be an education or a social activity.

In 1991 the two vocational training systems (apprenticeship and EFG) were merged into one, and a social and health education system was established within the youth education system.

In 1995 the theoretical streams within the vocational training system (the vocational gymnasias) got their own identity by the establishment of two three years programmes, one for the commercial sector (HHX) and one for the technical fields (HTX), with access directly from compulsory education.

In 1994 a new youth education program was launched called Open Youth Education (FUU). It is intended to provide a choice for young people who want to plan their own course of education, not finding attractive opportunities in the ordinary system. The programme is based mainly on existing courses within the field of socio-cultural education (folkeoplysning). The programme is normally of two years duration and consists of a variety of activities, furnishing the young people with personal competence and increased quality of life. Depending on the individual composition of the programme it may give access to further education. The development is now followed closely by a group of researchers. Figures indicate a certain popularity among young people. In 1996 2.514 young people joined the programme, the figures for 1997 being 3.620.

The programme has, however, been criticized for catering more for young people who want to pursue an education within a creative field, than giving those who are in doubt about their future a period of guidance. There is also some doubt if the programme is successful in encouraging the students to continue in the ordinary education system. Early studies showed that 67 per cent of those who have completed FUU has begun some kind of education. Recent analysis, however, contradict this. They show that only 34 per cent continued in education, while the rest either got work or were unemployed. The matter is now looked into.

The studies furthermore show that the programme is followed by three groups of students:

- Young people who want to qualify for entry to another programme, many of them within a creative or an artistic field
- Young people who use the programme to obtain more clarity on which education they should choose
- Young people who dropped out of an upper secondary education, either because they did not possess the necessary qualifications or because they did not find the education satisfactory.

The need for visibility and coherence

Although most of the initiatives during these years contributed to an increase in the number of young people completing upper secondary education it was felt that a drive under one common overall label was needed to increase the visibility of the initiatives. In November 1993 the Minister of Education therefore launched a comprehensive set of initiatives called "Education for All" (UTA). The aim was that the proportion of young people completing a youth education should reach 95 per cent before year 2000.

Besides the initiatives mentioned above, the plan consisted of improving the guidance, of making the compulsory education more attractive in order to stimulate the interest among pupils in seeking further education, of establishing better bridges between the compulsory education and youth education, of improving the credit transfer possibilities between the various programs in upper secondary education, of developing, at a faster pace, training and education to fields of economic growth. Finally the plan underlined that special attention should be given to late developers.

In the field of guidance, the youth guidance system now became firmly embedded in the legislation and was intensified. The youth guidance had been one of the tools in the fight against youth unemployment since 1982. It constitutes an obligation for the municipalities to follow all young people, who are not following youth education or who are not in employment, during a period of two years after they have left compulsory education.

New initiatives was also introduced in the field of building bridges between compulsory education and youth education. Many experiments were initiated and much experience has been gained. Experiments combining the curriculum of the 10th year in compulsory education with that of the introductory courses at the vocational schools seem to have been particularly valuable, and they are now part of the activities in many municipalities.

The Education for All initiative was supplemented with a number of research projects, the aim of which is to throw further light on the young people's demands and needs concerning education and training. The results of the research is to be presented in 1998.

It seems as the reinforced efforts to encourage young people to enter and in particular to complete an upper secondary education are at last having some effect. The number of young people entering upper secondary education has increased from 93 per cent of a youth cohort to more than 95 per cent in 1995, and the proportion of a cohort completing an education and training providing a competence have grown from 77 per cent to 83 per cent.

Table 3.3. The Educational Profile of a Youth Generation

Highest educational attainment	1982	1985	1990	1994
Compulsory education	29	26	23	19
General upper secondary education	7	7	8	8
Vocational upper secondary education	40	45	37	36
Tertiary education	24	22	32	37

A drive to increase the proportion of young people having an education and training has in the short run only a limited effect on the composition of educational background of the labourforce or the population as such.

When it, as has been the case in Denmark, is a goal pursued over a long span of years the effects are more visible. In 1985 50 per cent of the adult population had only compulsory education as their highest attainment. In 1990 this percentage had decreased to 44, in 1996 the percentage was 38 and in year 2000 it is expected to be about 29 per cent.

Table 3.4. The Educational Attainment of the Danish Population

Highest educational attainment (per cent)	1985	1990	1992	1994
Compulsory education				
Men	44	39	38	37
Women	55	48	46	44
General upper sec. educ.				
Men	5	25	4	5
Women	6	6	6	6
Vocational upper sec. educ.				
Men	37	41	41	41
Women	26	30	31	32
Tertiary education				
Men	15	16	17	18
Women	14	16	17	18

The transition process

Moving within the upper secondary education system and to the labour market. Drop-out.

Before the industrialization gained momentum in Denmark in the 1960s more than 60 per cent of a generation entered the labour market at the age of 14 to 15 without any skills or education after the 7 year compulsory education. A number of them later on got a vocational training, but the majority remained unskilled.

Now, 35 years later, very few young people below 20 establish stable, full-time relations with the labour market. One of the reasons for this is that 95 per cent continue in some kind of upper secondary education. Many young people do, however, not complete their upper secondary education or they drop out of the first one chosen to begin another one, often after a period with odd jobs, with unemployment or after a period travelling abroad.

These patterns of behaviour has contributed to the general opinion that the pathways between education and the labour market have become more and more diverse and winding.

This has many sideeffects, one of them is that the capacity of the upper secondary education system has to be considerably bigger than the size of a youth cohort indicates. In Denmark it is estimated that the overall capacity has to be about 1,5 times as big as the actual youth cohort in order to give everybody access to an upper secondary education. Another effect is that young people enter the labour market later than previously, thus reducing the length of their productive life.

Contributing to complicate the picture of pathways is also the fluctuations in the drop-out rates and in the students moving between the various streams and branches and from education to unemployment and visa versa.

The present situation in Denmark is in short the following:

In the gymnasium about 85 per cent of the students complete their education. In the commercial gymnasium the percentage is even higher, about 88 per cent. In the two year general course (HF) the completion rate is lower, about 66 per cent, illustrating that the students there often have had other priorities than the one they finally accepted.

In the vocational streams the completion rates vary from branch to branch. The structure of the vocational education system makes it rather difficult to calculate these rates. An estimate of about 90 per cent is probably not far from being accurate for those who have obtained a training place.

The completion rate calculated as the percentage of those completing a full vocational education programme in relation to the total number who begin at a vocational college gives a rate of about 65 per cent. This rate has been fluctuating rather much over the years, illustrating a.o. the changes in the training place situation.

These figures tell, however, nothing about the considerable number of students changing from one stream to another within the upper secondary system either before or after completing their originally chosen stream.

Approximately 25 per cent of the students in the gymnasium (general as well as vocational) decides f.i. each year to leave their first choice; of them about 3/4 go to another stream or branch. For the two year general course a considerable percentage drop-out of the system altogether.

Within the vocational education many who do not complete their first choice continue in another branch of the vocational education system. The percentage varies according to branches between 50 and 65 per cent. Only a minor part, less than 10 per cent, go to the general gymnasium.

Many of those who complete their upper secondary education go "back" to take another upper secondary programme. Among those who graduate from the general upper secondary education 20 to 25 per cent continue in some kind of vocational training, many of them in the commercial gymnasium.

Graduates from the vocational gymnasia follow a similar pattern, but here the percentage is higher, in the commercial branch about 60 per cent and in the industrial line about 30 per cent. The majority of them continue in a vocational training programme.

The majority of graduates from the general gymnasium continue however in tertiary education. Ten years ago the percentage of graduates continuing in tertiary education was about 2/3, now it is closer to 3/4. Simultaneously, the proportion entering the labour market has diminished from about 8 to 5 per cent.

Among those continuing in the tertiary education it is in particular the share going to the long university education that has increased. This is probably due to the considerable expansion of the capacity at the universities, which has taken place during that period, as well as to the reduction in the size of the youth generations.

The two year general course shows a similar increase in the percentage continuing in tertiary education. Here, however, it is the participation in medium cycle programs that has increased.

Graduates from vocational education have a different pattern of behaviour. 65 to 75 per cent enter the labour market outright, the highest percentage within the industrial and graphic fields, the lowest in the commercial and service trades. Those who enter tertiary education constitute about 11 to 14 per cent.

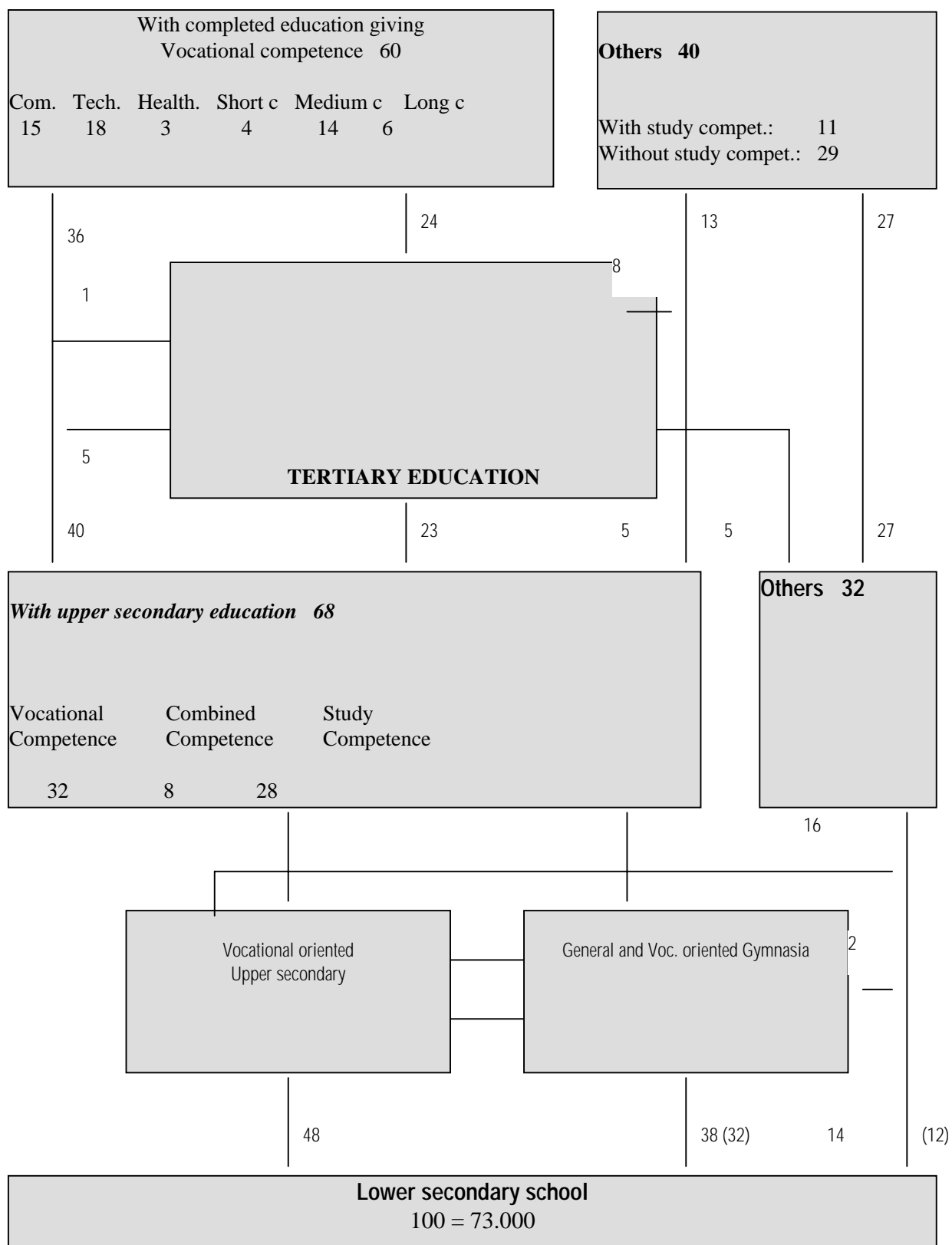
Here, too, the trend during the last ten years has been a growing number entering tertiary education, although the trend has not been as pronounced as in the general gymnasium.

As in many other countries the proportion of young people entering the vocational education sector has been declining during the last ten years, while the intake to the general streams has increased. In 1995 39 per cent of a youth generation went into the general upper secondary education, while 41 per cent went to vocational training.

Ten years before the corresponding percentages were 32 and 48. The decrease within the vocational education has been all the more serious as the youth generations in the same period have diminished from 72.000 to 61.000.

The way young people pass through the education system is illustrated in the two flow diagrams below, also showing the changes which have occurred in the pattern during the last 10 to 15 years.

A Youth Generation Passage Through The Education System 1982

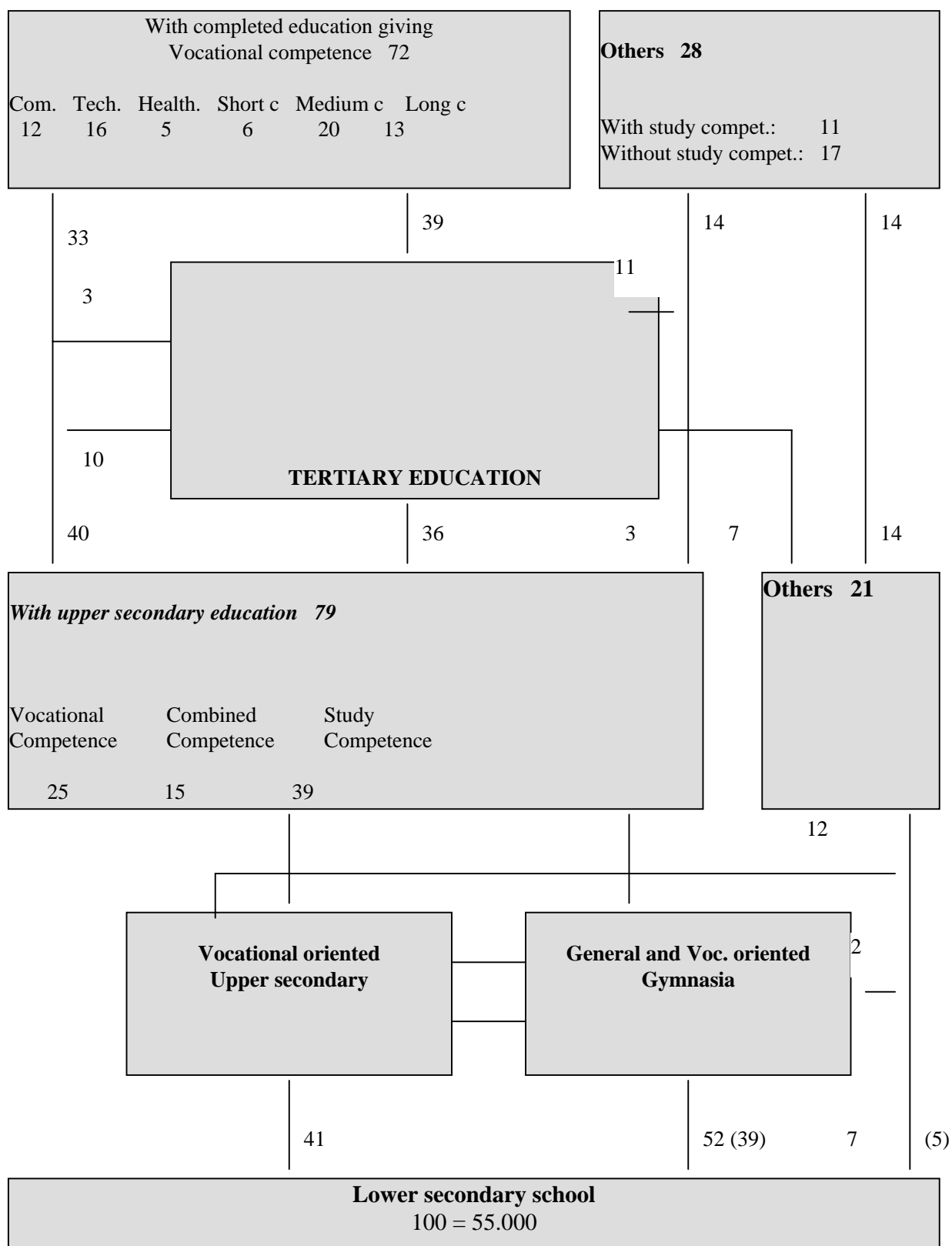


Note: The (12) is the percentage who never entered any education.

The (32) is the entry to general upper secondary education.

The 38 includes the entry to the technical and commercial gymnasia.

A Youth Generations Passage Through The Education System 1995



Note: The (5) is the percentage who will never enter any education.
The (39) is the entry to general upper secondary education.
The 52 includes the entry to the technical and commercial gymnasias.

Tertiary education. Changes of Study. Completion rates.

The fact that a considerable percentage of young people change from one upper secondary education to another does not imply that the young people have made their final choice of career. The same tendencies to change from one study to another is found in tertiary education. Nearly 50 per cent begin studies in more than one field.

The choice of field and type of study varies rather much as well. Students who have chosen the mathematical line in the gymnasium seem to prefer the long university studies, while only about 20 per cent of those who graduate from two year course choose such a study, many of the remainders choosing the teacher training college. Within the long university studies the men constitute a small majority, while the women dominate in most medium cycle programmes. There has, however, for some time been a growing proportion of women both in the medium and in the long cycle programmes. It has thus to be foreseen that they in a few years time will constitute a majority in the long cycle studies as well.

The fact that many students change study does not mean that they don't complete their studies. Analysis of those who passed the baccalaureate show that 15 years later only about 15 per cent either had given up their studies or had never started. A small percentage, 2,4 per cent, were still studying, while 82,7 per cent had completed some kind of education. This is a considerable improvement compared with the situation ten years ago.

There are, however, considerable differences in completion rates among graduates from the various lines in the general education streams. Graduates from the mathematical line have the highest completion rate. 10 years after graduation from upper secondary education their rate is 82 per cent versus 77 per cent for those from the language lines and only 73 per cent for those from the two year course. The completion rate also differs considerably according to field of study chosen.

The concern that too many students never complete their study, which was often raised some years ago, thus seems to be without much reality. The other concern, the long duration of the studies and the relatively high age of the graduates, persists however. For some of the university studies the duration has even increased. A law student f.i. takes in average more than 6 years to complete the studies, and a student in mathematics and physics takes 6½ years.

The main reason behind these study times is, besides the structure of the university studies, to be found in tradition and economy. Most university studies allow students to have part-time work. Together with a rather liberal study grant system this allow students to have a spouse and children before graduating, which in turn require the student to continue working part time, thus postponing the graduation. The average age when leaving university is thus high, 28 years. The students in the non-university sector do not pose the same problem. Most of the studies in that sector require that the students are present at the institution full-time.

The long duration of the university studies led in the late 80s, when the pressure on the capacity was particularly strong, to introduction of the bachelor programme. This has, however, not yet been a success, the universities were, with a few exeptions, against it, and it has been very difficult for the first group finishing their studies to get employment.

The reason for this is partly lack of knowledge among employers about the qualifications of the bachelors, partly that the unemployment among graduates from the long university studies (kandidater) makes it easy to hire those at nearly the same salary as the bachelors.

One of the consequences of this situation is that nearly all bachelors continue at universities to obtain a masters degree. The reform has thus not improved the capacity of the higher education system as planned.

Denmark remains among those OECD countries that has the longest transition time from school to work (8 years according to the OECD definition: the number of years it takes a cohort to shift from 75 per cent being in education to 50 per cent being in work).

To improve the employability of the bachelors, experiments with a specialization course of six months duration has now been introduced for bachelors within the natural sciences who do not intend to continue at university.

The employment perspectives for young people

During the 80s and in the beginning of the 90s the unemployment of young people fluctuated quite much due to changing economic conditions. Even in periods with a stable, growing economy it remained however rather high, in particular among the 20-24 year olds and among women.

The unemployment among young people was in general not much higher than as the total unemployment, but it was considered more serious for young people who had none or very little work experience. The fight against youth unemployment therefore caught rather much attention until it started declining rather rapidly in 1995. Early studies showed a close connection between the level of education and training and the risk of being unemployed or marginalized. This is still the case as will be seen from the table below.

Table 3.5. Unemployment in Denmark

Per cent	1985	1988	1991	1993	1996
Youth (16-24 years)	10,9	14,7	14,9	10,8	6,7
All (16-66 years)	8,6	8,0	9,6	11,4	7,7
Of which with:					
No vocational education	10,9	10,5	12,0	14,2	9,9
Incomplete voc. Educ.	10,4	10,2	12,6	14,4	10,4
Complete voc. Educ.	6,8	6,4	8,6	10,7	7,0
Short cycle tertiary	4,8	4,5	6,0	6,7	4,7
Medium cycle tertiary	3,4	2,9	4,0	4,9	3,1
Long cycle tertiary	5,6	4,6	5,6	6,3	4,3

As will be seen from the table, the unemployment rate for those who have compulsory education as their highest educational attainment (irrespective of age) was in 1996 9,9 per cent, compared with 7,7 per cent for the total labour force and with 7,0 per cent for those who had completed a vocational education, while those with a tertiary education had even lower rates, varying from 3,1 per cent for those who have completed "medium long" or bachelor programmes (health personal, teachers etc.) to 4,3 per cent for those with a masters degree, and 4,7 per cent for those with a short, tertiary education (technicians, IT-personel etc.). The concern about getting young people in education therefore persists.

As mentioned earlier the transition from school to work lasts longer in Denmark than in most other OECD countries. The time it takes before a graduate gains foothold at the labour market is therefore of particular importance in Denmark. Since the 70s statistics concerning this have been produced showing the

proportion of newly graduates who have obtained employment 4 months after graduation, one year after and five years after respectively. The most recent figures are unfortunately from 1992.

The employment figures for those with a vocational education as well as for those with a tertiary education show four months after graduation a variation during the 80s parallel with the economic outlook in general: a growth from 78 per cent around 1980 to 87 per cent in 1987, when the economic downturn started. In the following years, until 1993, the percentage dropped to 74 per cent. During the whole period there were only very little difference in this employment rate of those with a vocational education background and of those with a tertiary education.

Statistics from the same year on how "one year" and "five year" graduates fare show, however, a more varied picture.

One year after finishing education 83 per cent of those who had entered the labour force had work. Quite surprisingly the proportion being in employment was higher among those having only compulsory education (84 per cent) than among those with a vocational education (81 per cent). Highest employment rate had those with a "medium cycle" education (90 per cent), but graduates with a masters degree had improved their situation to 86 per cent, compared to 68 per cent for "four months" graduates.

The situation five years after graduation shows a further improvement for those with a tertiary education. 95 per cent of those with a masters degree and 96 per cent of those with a "medium long" education have employment. The situation for those with a vocational education and for the early school leavers have changed as well. Only 73 per cent of those with compulsory education as their highest attainment are now employed, while the proportion of those with a vocational education is 87 per cent.

These figures underline again the increased risks of becoming marginalized and unemployed if you have no particular skills. The government therefore in the beginning of 1996 launched a new comprehensive programme called "The Youth Effort" or "The Youth Package".

The Youth Package

The aim of the youth package programme, which came into effect as from 1 April 1996 is to get young people into education or into employment as soon as possible.

The target group is unemployed persons under 25 who receive unemployment benefit, who have not completed a vocational education programme and who have been unemployed for six months within a period of nine months.

The "Youth Package" implies primarily an obligation (and a right) to participate in a training programme of 18 months duration, preferably within the ordinary vocational education system. If it is considered more beneficial for the young person, special 18 months training programmes can be established. The third option for the young people is vocational guidance and job oriented activities, also of 18 months duration.

If the person refuses to accept a reasonable offer of education or other forms of activation he or she forfeits the right to unemployment benefit altogether.

Not included in the programme are young persons receiving social benefit. They are however obliged to work or participate in education and training for a minimum of 30 hours per week. The programme aimed at this group is the responsibility of the municipalities.

The implementation of the youth package programme is the responsibility of the Public Employment Service. Together with each young person the service draws up a plan for the activation period. During this period the young person is paid an allowance. The allowance differs according to the choice of education. Maximum for most of the young people is 50 per cent of the unemployment benefit.

When the programme started 7.400 young people were expected to be eligible for participation. However, more than sixty per cent of them changed status before activation had to begin. Of these about one third began education while nearly 40 per cent had started working, most of them in the private sector as unskilled workers. Those who chose to work instead of taking up education did so mainly for economic reasons.

50 per cent of those who chose education went into an ordinary vocational education programme, 25 per cent went into the special programmes and the remaining 25 per cent started in other guidance and training programmes.

Special reception units have been established at all the vocational colleges together with a number of coordinating centers.

The reception unit plan together with the young person the composition of the special programme, which is often tailor-made for him or her. They furthermore give guidance and advice during the activation period.

The programme is followed closely by the coordinations centers, the Ministry of Labour and the Ministry of Education. Research institutions carry out analysis and studies in order to improve the scheme.

According to analysis recently published the programme still seems to be a success. 18 months after the programme began one third of the target group were still in a special education programme, one fourth had found employment, one fifth had begun an ordinary education, while the remaining fifth were unemployed. The most remarkable result seems to be that the special education programmes apparently function as an "icebreaker", changing the young people's attitude towards education. It is, however, still those with a weak educational background who tend to choose employment and not education.

It still remains to be seen if the programme has a lasting effect on the relations of the young persons to the labour market. Preliminary surveys show that these young people still are a very mobile group. A number of those who began an education or obtained employment when the programme started fell back into unemployment after a while.

For the young people who are not eligible for unemployment benefits the situation is often more complex. It is estimated that the problems for 45 per cent of the young persons who rely solely on social security were not just unemployment.

The municipalities, which are responsible for this group, apply a wide range of initiatives in order to activate them. Dominating is the jobtraining measure, while education is applied for only 20 per cent.

The efforts of the municipalities have resulted in a considerable growth in the number of people participating in some kind of activity, thus probably keeping many from being excluded from the society.

CHAPTER 4: CHANGING EXPECTATIONS AND OBJECTIVES

Introduction

Expectations of the ability of the education systems to contribute to economic growth and to remedy social deficiencies have grown considerably since the 70s. Research and experience has, however, at the same time contributed to reducing the faith in education to more realistic levels in certain respects and has made policy makers more aware of its limitations.

In Denmark, a longitudinal study of a sample of young people from the age of 14 till they in 1992 were 38 years old shows that they all spent considerable longer time in education than their parents, longer for the young men than for the women. The economic conditions were generally far better for them than for previous generations. These conditions contributed, however, surprisingly little to level out the differences in social origin among those who obtained a long university education. Of those who at the age of 14 were among the most brilliant, a much higher proportion of those having parents of high social standing than those of more humble origin got degrees from university. Among the children of the professional classes 33 per cent belonged to these classes at the age of 38, while only 5 per cent of the children of unskilled workers made it.

Recent studies give more details of the problem. Two factors seem to be of importance when deciding upon an upper secondary education or not: the social background and the academic skills. Young people coming from low income families, but having a good academic record are, however, likely to continue in upper secondary education. Danish education policy concerning primary and lower secondary education is therefore focusing much on making children feel that they are successful.

Later in the education process the social background still plays a role. Figures show that 50 to 65 per cent of children from families with a university background have entered a long cycle tertiary education, while the corresponding figures for children from families with a lower secondary or vocational education are only half as big.

Students from families with an academic background are, however, not more successful in their studies than other students. Both groups have approx. the same failure rate.

Many organized groups as well as the general public participate in discussions about the costs and benefits of education. The discussions are sometimes based on results from surveys like the ones quoted above and polls on skills and knowledge of young people, but mostly reflecting fundamental attitudes to upbringing of young people and life in general. All together the discussions, however, illustrate a widespread interest in education among the general public.

In Parliament this general interest has lead to a tradition of giving a certain latitude in legislation for experiments in schools and a custom of passing new legislation only when a near unanimity is obtained.

Behind this layer of ongoing general discussions is, however, a net of interactions between the Ministry of Education and a number of groups and organisations. There is a long tradition for such an interplay.

The main participants in the education process are the municipalities and counties, responsible for operating schools for compulsory education and general upper secondary education, the social partners as

decisionmakers on many issues within the vocational education, the teacher unions, headmaster organisations, the organisation of parents and various organisations of "schoolowners" (many schools are organized as private, non-profit institutions run by rather independent boards).

In upper secondary education the pattern of cooperation differs according to type of education.

General upper secondary education

In the general education streams the main partners of the Ministry are the counties, being responsible for the economy of the gymnasia, and the teachers union (The National Union of Upper Secondary School Teachers). The teachers union in particular exert, compared to many other countries, considerable influence on curricula and syllabi, as nearly all teachers are members.

It is often stated that this is a major advantage when it comes to implementation of changes. Other groups, however, claim that it reduces the responsiveness of the gymnasium and HF to the surrounding world and delays modernization.

This criticism of the general upper secondary education has been particularly vocal during the 90s, partly as a consequence of the growing interest among employers in hiring young people with considerable general skills and knowledge, partly because the popularity of the gymnasium among young people leads to a growing pressure on universities.

Recently the union of the teachers has published a green paper on the future of the gymnasium. In the paper the union raises questions about the quality and kind of education and about the working conditions of the teachers.

The paper takes a starting point in a list of problems about the present gymnasium:

- Have the students and their social environment changed?
- Is the structure of the school day too divided with rather many short lessons each day?
- Is the teaching sufficiently diversified?
- Is the workload too heavy?
- Are the curriculum regulations too detailed?
- Is too much time used for examinations?
- Is the gymnasium able to prepare the students for admission to higher education?
- Do the students feel that they have influence on the teaching?
- Are the teachers training up to the present demands?
- Is the inservice training sufficient?
- Did the new collective agreement on working conditions reduce the enthusiasm of the teachers?
- Is the management structure development oriented?
- Is it still attractive to become a teacher?

The paper furthermore raises questions about the kind of qualifications the students will need in the future in relation to the general "culture" of the students as well as to their personal and academic qualifications.

Finally the paper raises questions about the future role of the teachers, of the examination system and evaluation methods, of the integration of IT in the teaching, of the cooperation between teachers, of the structure of the curriculum, and of the working conditions of the teachers. The debate has now been

started among the teachers, the aim being to furnish the members of various committees with information about the position of the members of the union.

Vocational education and the vocationally oriented gymnasia

In the vocational education there is a different team of players. Main partners are here the labour market organisations. The teacher unions, although nearly as well organized as in the general education sector, participate in the development process in a far less dominant way.

The labour market organisations on the other hand are in the legislation furnished with extensive powers, f.i. when deciding upon which enterprises should be allowed to train apprentices, in regulating the final journeyman's test, and in deciding the duration of the length of the training programme in total as well as that taking place at school and in designing the curricula.

Here, too, criticism has been raised that these powers tend to shape vocational education according to the needs of enterprises only, excluding general elements of value for the young people as citizens in a democratic society. The critics furthermore claim that the system reacts too slowly to new trends and demands.

It is, however, a fact that the power sharing system is to be given much of the credit for the vocational education being better in accordance with the needs of the society than in many other countries. When the labour market organisations publish papers on education they therefore generally attract much attention.

The labour market organisations play an important role in the design of the vocationally oriented gymnasia as well. Of great importance is, however, also which kind of tertiary education the completion of these programmes give access to. A dialogue with the institutions which are supposed to receive the graduates is thus equally important.

The employers

The Danish Employers' Confederation

The status of the Federation of the Employers' Associations (DA) implies that it is the official representative in most official committees, boards, commissions etc. The influence of the federation is therefore considerable.

DA recently stated that there is a need for changes in the vocational training system making it more responsive to future needs for skills and qualifications and more attractive to young people.

DA has suggested a structure with the following characteristics:

- Vocational education should begin with a basic education period, the length of which could vary according to the qualifications of the student and the demands of the trade in question. An example is the present basic education within commerce and administration, lasting one to two years. By the end of the period the student should receive a certificate describing his or her level of competence.
- The education should be flexible, the duration and level depending on the need for qualifications within the trade.

- Entry requirements should be introduced, making it possible to increase the level of education.
- The dual system should be modernized
- The way of entering vocational education should be made more simple and clear.
- Flexible ways of establishing high skills specialities, satisfying the needs of the various enterprises should be established together with a closer cooperation between initial education and further training.
- The steering of the colleges and the education according to aims and overall guidelines should be made more efficient.

According to DA this will make it possible to reduce the studytime, in particular if the transfer directly from 9th grade of lower secondary education is encouraged. The reform will furthermore simplify the legislation, making the special EGU rules superfluous.

The Confederation of Danish Industries

The Confederation of Danish Industries (DI) published in 1997 a paper called "The Knowledge Society - challenges for the industry and the education system" stressing that the demand of DI is, that Denmark should have a "competitive" education system, as the industry will need a growing number of well educated employees on all levels in the coming years. What is lacking now is, according to DI, not the amount of money spent on education, nor the attitude towards education among young people and their parents. What is really needed is a more efficient use of resources invested in education.

DI predicts that there might be a deficit of 175.000 skilled workers and of 20.000 professional engineers and technicians in 2008.

According to DI the demands of the economy can only be met by:

- putting a brake on the growing exodus from the labour market (due to a.o. favourable early retirement schemes)
- increasing the number of training places in enterprises
- training of unskilled workers.

DI recognizes the role the industry itself has to play to meet these targets, but underlines the importance of the role of the policymakers as well. DI points at the following initiatives to be taken by the authorities:

- The capacity of tertiary education has to be expanded in order to be able to accept every young person who has completed the general or vocational gymnasium
- The expansion of tertiary education should take place in study fields directed towards careers in the private sector, if necessary by introducing tuition fees within studies not likely to become attractive for the private sector
- More stringent admission requirements to university studies should come into force, favouring students who begin studies immediately after baccalaureate
- Improvements in the compulsory education should be introduced, aiming at improving the pupils' reading skills and skills in mathematics and science
- Strengthening the role of the gymnasium in preparing the most able students for university studies, while increasing the range of subjects the students can choose
- Improvements in the vocational education a.o. by introducing admission requirements, by introducing vocational programmes particularly organized for young people with a baccalaureate, by

strengthening requirements for passing final tests and by improving the environment and the quality of teaching on the vocational colleges.

The unions

In Denmark the unions are traditionally very active in education and training matters. They exert much influence as the organisation percentage of employees is very high.

The Danish Federation of Trade Unions

In 1994 The Danish Federation of Trade Unions (LO) published a green paper, advocating a comprehensive modernization of the vocational education system. The two other main partners governing the vocational education, The Ministry of Education and The Danish Federation of Employers did however not respond outright to the proposals. Instead, an analysis of the experiences from the vocational education reform from 1991 was initiated in 1996. As part of the discussion of this analysis LO recently published a paper on the dual system.

LO confirms in the paper its support to the principle of the dual system, although underlining the need for a continuous modernization, the responsibility for which, according to LO, lies with social partners.

LO raises three fundamental issues to be discussed and analysed:

- 1) The distribution of the total length of education between school periods and time spent in enterprises as well as the interaction between them
- 2) The demands on the partners in the design and upkeep of the system
- 3) The development of the roles and responsibilities of the social partners as being the main responsables for the vocational education.

In the paper LO proposes a reform of the structure in vocational education in order to reduce the growing drop-out rate. LO proposes the education divided into two parts: a first part at a vocational college, the duration of which vary according to the qualifications and the determination of the students, followed by a part two structured as a dual system.

Besides this proposal for a structural reform, the paper proposes to solve the problem of the insufficient number of training places in enterprises by reintroducing subsidies to enterprises for providing training places, financed from the AER-fund.

LO also proposes to develop workshop schools to supplement the training taking place in the enterprises and at the present school-based training, making it possible to issue a guarantee for education and practical training.

LO argues that it is imperative that the quality of education, the didactics and the environments of the vocational colleges should be improved to the level of the general gymnasia.

LO has furthermore recently advocated a comprehensive reform of the upper secondary education system aiming at establishing a coherent, simple system, comprising the general streams as well as the vocational ones and the 10th year of the compulsory education.

Danish Metalworkers Union

Danish Metalworkers Union, one of the biggest and most influential unions in Denmark, published in January 1998 a number of wideranging proposals for reforms of the vocational education and training system and of the transition from compulsory education.

The present voluntary 10th year in the compulsory education is suggested transformed into an introduction year taking place at vocational colleges. The structure of the vocational education is suggested divided into two parts: the first part being a flexible basic education at the end of which the students have to pass an examination in order to continue the second part of the education and training.

The dual training principle is proposed preserved, but training may have to take place in several companies. The education in colleges is proposed given a modular structure, making it easier to transfer from one programme to another.

The union furthermore proposes that more is done to attract young girls and young people who have passed baccalaureate to the industrial trades.

Adult people should, according to the union, have improved possibilities of having training as skilled workers. As one of the measures to bring that about, it is proposed that the vocational education system is merged with the labour market training system for adults.

The National Association of Local Authorities

In a recently published paper the Association of Local Authorities (which a.o. is responsible for the compulsory education) has analysed the future needs of the municipalities for teachers, personnel for the day care nurseries and the kindergarten, the health service, social workers etc. and the resulting demands on the education system, but also discussing changes in the way work is organized at present as well as changes in the composition of workloads.

The Association of Local Authorities has furthermore recently together with the Union of Teachers and the Ministry of Education published a plan for the development of the compulsory education during the next two years.

This plan contains eight points on which the three partners will cooperate:

- 1) Formulation of aims and objectives and determination of methods for evaluating quality
- 2) Implementing the aim of the new legislation in the compulsory education according to which the teaching should be based on the abilities and needs of each individual pupil
- 3) Formulating objectives for teaching of basic subjects as f.i. skills in reading, writing and arithmetic
- 4) Improvement in the provision of teaching matériel, including computers and modernization of school buildings
- 5) Improvements in the cooperation between kindergartens, schools and leisure time activities in order to create coherence and better quality in the children's daily life
- 6) Improvements in the dialogue between parents and schools
- 7) Development of the role of headmasters, introducing leadership training and better personnel management
- 8) Increased efficiency in the utilization of resources.

The Association of County Councils in Denmark

The Association of County Councils published in March 1998 a green paper on education. Analysing the six national targets for the Danish Education System by year 2000, the paper identifies the following, important tasks:

- creating better coherence in the education system, horizontally as well as vertically
- increasing the international elements in education
- integrating IT in learning and teaching
- increasing the flexibility in the various programmes.

The paper puts forward for discussion two models aimed at bringing more coherence, better quality and increased efficiency in the education.

Model 1 is a free enterprise model in which schools and colleges compete for students.

Model 2 is called the coordination model. According to this model the type and capacity of education is decided by one authority only, having analysed the demands of the society.

The paper argues that model 1 is the one used in vocational education and labour market training, while model 2 is the model the counties apply for the general upper secondary education, the social and health education and the formal adult education.

The paper furthermore points at the need for a coordination and coherence in the supply of education as well as a need for a coherent evaluation of quality in the various types of education. The paper points at the counties as being the authority best suited to accomplish these tasks.

In the paper several changes in the education system are proposed. It is f.i. suggested that a number of rather short vocationally oriented programmes are established on top of the general upper secondary education programmes, and more wide and flexible curricula is introduced in the remaining programmes.

In the general education field it is suggested to look into the present functioning of the two year course, maybe even abolishing it.

It is in the paper claimed that the present resource allocation model for the vocational colleges leads to a competition, the result of which is lack of continuity, inferior quality and lack of objectivity in the career guidance provided by the colleges.

The paper proposes an integrated management of the general as well as of the vocationally oriented gymnasia, possibly accompanied by a unified structure and more freedom for the schools in implementing the curricula.

The capacity of the social and health education system is proposed increased in order to provide a sufficient number of workers in these fields. One of the means pointed at is an increase in the number of training places in the counties.

As far as the medium cycle tertiary programmes is concerned, the paper argues that such education should be available in all counties and better coordination between studies be achieved.

The responsibility for the medium cycle within social and health programmes should according to the paper be taken over by the counties.

The paper finally proposes that the counties are given the overall responsibility for the provision of adult education.

It has to be brought in mind that the publishing of the green paper by The Federation of Counties serves two purposes: one aimed at contributing to improving the quality and coherence of education, another being a contribution to the ongoing discussion about the distribution of competences and authority among the state, the municipalities and the counties.

In this discussion the Ministry of Education has proposed that the administration of the general upper secondary is transferred back to the ministry in order to apply the same principles for economic and pedagogical management as used in vocational education.

Teachers and students

A commission is presently looking into the question of the distribution of competences between authorities. Several papers have been produced as part of this work, one of them dealing with the upper secondary education system. The paper do not put forward any proposals for reforms, it contains, however, a list of problems and complaints voiced in newspapers, reports, periodicals and during interviews with teachers, headmasters and students.

Although not based on a representative sample, the analysis gives an interesting picture of how the students and the teachers view the education.

In the general upper secondary education the students find the grouping into optional and compulsory subjects arbitrary, and they want more freedom to choose subjects. They furthermore complain that too many subjects are taught, preventing them from serious studies and making any coherence difficult.

Many students admit that they chose the general upper secondary stream because they did not find the alternatives attractive or because they in this way could obtain study grants. Many also felt that they were "pressured" into this kind of education by parents, who find the general stream the most "safe" way to a career.

Some of the students complain of lack of disciplin and control and an uneven workload, placing a disproportionate part in the second year. Many students also criticize the marking system, making the students too dependent on the teachers' evaluation, and they find that the teaching from time to time is rather uninspired.

The teachers find it difficult to achieve a balance between the two main objectives of the general upper secondary education: to prepare students for university studies and to prepare them for adult life in general. This uncertainly is reflected in many of the problems listed, f.i. in which subjects should be obligatory and how much teachers can demand from students.

Generally, the complaints of and frustration among the teachers can be grouped as follows:

- lack of time to profound teaching
- too little time for developing the teaching of the various subjects

- too much time spent in meetings and on coordination etc., leaving too little for teaching
- too few resources available for in-service training
- the mismatch between aims and objectives laid down by the Ministry and the economic realities as decided by the counties.

In the vocational education sector problems are different. The biggest problem for the vocational education is, according to students and teachers alike, the inhomogeneity of the students, many of whom have chosen vocational education only as a second or third priority. Many lack sufficient proficiency in reading, writing and mathematics, and many are dependent on others, and lack motivation and concentration.

The students are not happy with teaching: either the demands on the students are too few, or the teachers indulgent and there is too little disciplin.

While everybody agrees upon the open entry policy, teachers and students alike find it necessary to divide students into classes, according to abilities and knowledge. Teachers and headmasters want such a division followed by special efforts directed towards those with a weak intellectual background. They argue, however, that this require modifications in present legislation.

The teachers complain that demands from the central authorities about new teaching material and teaching methods is not followed by an increase in resources. They also complain that the executive orders concerning the education restrain the teaching. The competition among colleges and the system according to which resources are allocated have similar effects, they claim. The teachers furthermore criticise the quality of the practical training in enterprises. Some of the small enterprises do not fulfill their training obligations. At the same time the teachers argue that those students who participate in the school based practical training, because they did not get a place in an enterprise, lack motivation.

Lack of motivation, drop out etc. is often due to guidance which is biased by economic considerations, rather than an evaluation of the abilities of the students, claim the teachers.

The students, and to a certain extent the headmasters, claim that teachers are not sufficiently qualified in the trade they teach, while the teachers complain that their in-service training is insufficient and the workload too heavy.

CHAPTER 5: ISSUES AND PROBLEMS IN THE 90S

Reforms adopted

During the first five years of the 90s a number of major reforms of the education system in Denmark have been adopted, the effects of which are only now beginning to show.

In 1991 the merger of the two competing vocational training systems (apprenticeship and EFG) took place. Apart from the merger the bill also gave even more influence on the content of the education to the social partners and gave the colleges more freedom in implementing the programmes.

Also in 1991 a new structure of social and health education was implemented, placing these programmes within the upper secondary system.

The basic vocational training program (EGU) was established in 1993.

1994 gave birth to a major reform of the compulsory education (folkeskolen). It was given a new act, attaching much emphasis on individualization of the teaching, on a better preparation of the children for their adult life and on improving the teaching in basic subjects like Danish, mathematics and foreign languages as well as encouraging major improvements in the teaching and use of new information technology.

In 1994 the "Open Youth Education" was introduced.

The vocational gymnasias were in 1995 given a new identity, separating them from the rest of the vocational education as independent three years' courses in line with the general education gymnasias.

Within the tertiary education the structural reform replacing the traditional continental one-degree system with the BA, MA, Ph.D. system was introduced in 1992.

Other major initiatives

The period has furthermore been marked with a number of major initiatives. Generally these initiatives can be grouped into two categories, one aimed at improving the transition process and the possibilities of completing an upper secondary education and training as well as expanding the capacity of tertiary education, the other intended to improve the quality of the teaching and of the competences of the graduates.

Improving the transition process, increasing the capacity and the completion rate

In this group one finds the comprehensive "Education for All" initiative from 1993, combining a number of measures aimed at making the passages through upper secondary education more attractive and open.

The other major initiative in this group is the "Youth Effort" from 1996, introducing the "stick and carrot" in an effort to increase the number of young people entering education or the labour market.

Also in this group of initiatives are several agreements among political parties in parliament upon increasing the capacity of the universities and other tertiary education institutions.

Improving the quality

The quality issue

The quality issue came in focus in Denmark in the late 80s, inspired mainly by the international debate on the subject. The issue originated in higher education. It spread, however, soon to the gymnasium as well as to the vocational education and later to the compulsory school. The topic caught much attention, partly due to a growing concern among industrialists about the quality of graduates, in particular of engineers, young scientists and researchers.

Denmark has for many years used independent external examiners as a means of controlling the quality of the graduates, not only those from higher education, but graduates from the rest of the education system as well. As the criticism continued and became rather widespread, the government felt, however, that new methods had to be developed.

The first step in the development process was the establishment of a semi-independent institution, charged with developing methods of measuring quality and applying these measures on studies at universities.

The continued public debate about the quality issue made it soon a priority to accelerate the work on improving quality of the education in the general even further. This resulted in a considerable number of experiments in higher education as well as in the rest of the education system. The general education gymnasia experimented f.i. with a kind of group inspection, inspired from similar initiatives in U.K. as well as with self-evaluation. In 1996 a committee started working on a methodology for describing and evaluating the results of a school.

In the vocational education field the Ministry in 1995 initiated an extensive development initiative, comprising numerous experiments and research projects aiming at developing a framework for evaluation and for development of quality. All the vocational colleges are in one way or another involved in the projects.

The aim of the initiative was two fold:

- to improve quality in every programme and
- to increase the efficiency in education, making better use of the resources available.

The initiative has gradually been concentrated to:

- Independent evaluations of the quality of programmes and subjects
- Establishment of a monitoring system

- Enhancement of the in-service training of teachers
- Strengthening of the school management.

The project is still running. Each year the Ministry subsidize more than 200 experiments.

The compulsory schools were not unaffected by the debate, and experiments were conducted in many schools, a considerable number of them inspired by the Ministry of Education.

The quality issue became even more at the center of the debate when the first edition of "Education at a Glance" was published in 1992.

The focus of the debate then shifted to the compulsory school. The reason was the publication of the results of an international survey of pupil results in reading (the IEA-survey), showing that the results of Danish children, in particular the youngest, were rather poor compared to children in many other countries.

As most Danes considered the Danish Education system among the best in the world, the results caused much alarm in the general public and among the politicians.

At first it was considered that the reason for the unsatisfactory results were to be found in the methodology of the survey and in the fact that the compulsory education starts rather late compared to many other countries. Another explanation put forward was the special Danish introduction process, emphasizing skills in reading and writing lower in the younger forms than in most countries, instead giving higher priority to developing social skills. This explanation found support in the fact that Danish children obtained better results in the 13 years' test.

Gradually, however, it was accepted that much of the cause of the poor results was to be found partly in the reduction in the number of lessons in Danish in the compulsory school over the years, partly in teachers paying less attention to reading and spelling skills, as the number of other subjects in the curriculum had increased. The poor showing resulted in a brush-up of the pedagogical attention to reading technics and in many calls directed to the municipalities for an increase in the number of lessons in Danish.

Furthermore, when the new bill concerning compulsory education was introduced and negotiations in the parliament were conducted, the minimum standards requested of the municipalities were increased.

The debate spilled over into other fields of education, the universities criticizing the level of knowledge among graduates from the gymnasium and shop owners and commercial enterprises complaining that the young apprentices were not able to read, write and calculate properly.

Most of the debate was directed, however, towards the compulsory education (folkeskolen) and in particular towards the teachers, causing widespread frustration and anger among them.

The Information Technology drive

Closely related to the quality aspects was the IT-drive. In 1994 the government presented a white paper on the IT situation in general in Denmark. The paper outlines a general development strategy covering the period up to year 2000.

It deals with technology aspects in all sectors of the society and outline a comprehensive strategy on how to apply modern technology in the Danish society in such a way that the population is not divided into an A team and a B team.

The strategy outlined comprises establishment of a public administration servicenet, as well as the implementation of IT in health services, in research, in education, in libraries, in traffic control, in communication among enterprises, in improving the quality of the life of the handicapped and in the daily life of the ordinary citizen.

Within education two fields in particular were stressed: adult education and the compulsory education.

The application of IT in the compulsory education was dealt with in some detail in the paper. A datanet connecting all schools in the country is one of the elements in the strategy. The net is to be used for exchange of pedagogical innovation and other information. The paper furthermore advocated a close cooperation between the Ministry of Education and the municipalities concerning training of teachers, on the introduction of IT from schoolstart and on supplying the schools with a sufficient number of modern computers in as short time as possible.

A few months before the publication of the White Paper, the Minister of Education had published a report on technology-supported distance learning in which a number of scenarios for a likely development was drawn up. The report proposes among others a major in-service training programme for teachers and administrators, a considerable investment in hardware, the establishment of a national data network for educational purposes and the establishment of a national servicecenter for the development of technology-supported learning. The proposal concerning the center was implemented nearly right away and a major teacher training programme started as well.

Following the white paper and the report, the work on the establishment of the national data network connecting all schools was intensified in the Ministry of Education and the work on teacher training and the adaptation of the curricula continued as a priority field.

One of the aims of the net is to make pedagogical experience more easily available and improving professional dialogue between educators.

Links to a Nordic school datanet has also been established and plans for the establishment of a European net are now under way.

The white paper do not mention a concrete target for the number of computers in the schools. Rather soon, however, a target of five to ten pupils per computer in year 2000 was mentioned. (In 1993 the figure was 25 pupils per computer. In 1997 the ratio had decreased to 15 in compulsory education. In the general gymnasium the rate was 13, while in the vocational sector it was as low as 2,8-4).

The IT initiative caused rather much public attention. As indicated above the Ministry of Education had, however, dealt with the matter for several years.

IT was taught in compulsory education already in the 80s as an optional subject, and IT was introduced as an obligatory subject in the curriculum of the compulsory education in 1990. In 1993 IT was abolished as a specific discipline, the policy now favouring an integration strategy. Descriptions on how this could be achieved were included in the curriculum guidelines issued by the Ministry.

It has, however, to be admitted that the reality in the classrooms in the beginning of the 90s was a long way from targets. Most schools had only few computers (note the figures mentioned above) and the majority of teachers had only limited IT-skills. Much energy was thus aimed at accelerating the development in these two fields.

During this work it became obvious that considerable resources would be required to achieve the original goals. For the compulsory education the goals were then reduced to one computer per 10 pupils in 2003.

The third field, besides teacher training and the supply of computers, where special efforts is needed is teaching matériel. The Ministry of Education has therefore in collaboration with the Ministry of Industry launched a project aimed at developing and testing matériel able to integrate media- and information technology and traditional teaching methods.

In general upper secondary education the development in teacher training as well as in the provision of the schools with computers was intensified. An experiment with a total integration of IT in the teaching has been conducted in two schools a.o. supplying all students with a portable computer.

In vocational education IT had been on the agenda for rather many years. First, from the beginning of the 70s, by training IT technicians performing professional programming and operations, later on, from the late 70s, by applying IT in the teaching in general, first in the commercial fields, but soon in the metal trades as well, when CAD and CAP techniques began being used in industry.

Considerable resources were applied in training of teachers in vocational colleges. A special unit for promoting computer-assisted teaching had existed at the Institute for the Educational Training of Vocational Teachers since the mid 60s. For several years around 1980, 40 to 50 million DKK was spent every year for supplying the colleges with modern computers, and considerable amounts are still being spent each year for modernization and augmenting the supply of computers in colleges.

International outlook

For many years contacts with countries other than the Nordic, were mainly a matter for higher education. Even in higher education contacts were in many disciplines confined to UK and USA. Many faculties had no or very limited relations with other countries, and the number of students spending time at foreign universities was very little.

The situation improved somewhat in the 80s facilitated by the research becoming more and more based on international teamwork. The EU-programmes, ERASMUS and LINGUA, established in 1987 and 1989 respectively, promoting mobility among students and teachers caused a considerable acceleration in the development, increasing the number of students studying abroad and widening the number of countries visited.

A similar effect had the following EU-programmes like PETRA, SOCRATES and LEONARDO DA VINCI and the coming European Schooldatanet will undoubtedly contribute to the international cooperation as well.

Internationalization has become a growing issue in vocational education too, as workers in service and production have to perform in a world where skills in foreign languages and knowledge of other cultures are necessary. The introduction of the Single Market in EU has reinforced this development.

Teaching of foreign languages has been part of the curricula of vocational education from the beginning of the 70s, but in the late 80s it was proposed to give young apprentices the opportunity to experience foreign cultures and to speak foreign languages by letting them spend part of their practical training in a foreign firm. At first it was an initiative financed solely by Danish firms, organisations and authorities. Later it has been possible to obtain support from the European Union programme LEONARDO DA VINCI..

According to Danish rules an apprentice can spend part of, or even the entire enterprise training period, in a foreign company. Such an arrangement requires either an agreement between the Danish employer of the apprentice and a foreign company or a prior accept by the Danish authorities of an agreement between a foreign firm and an apprentice.

An apprentice who is on contract with a Danish employer receives wages according to Danish rules. A difference between Danish wages and the wages in the foreign country is financed by the Danish employer who in turn is reimbursed by the Danish AER-fund (if the secondment takes place within an EU or an EFTA country).

If the apprentice has no contract with a Danish employer, he or she is paid according to the rules in the country of the foreign employer. The apprentice may in such cases obtain subsidies from the AER-fund.

The scheme has been growing steadily in popularity. More than 1000 apprentices are now at any time spending training time in a foreign company.

The most visible effect of the cooperation is the increase in the number of students and teachers spending study periods in foreign countries. The increased cooperation has effects as well on the teaching as on the curricula. The cooperation between schools promoted by the SOCRATES-programme has had similar effects not only in the rather limited number of schools selected for participation but among other schools as well, now being aware of the benefits of such cooperation.

Current problems

In spite of the reforms and the many initiatives taken in the 90s a number of problems persist. Some are inherent in the system, while others are caused by external factors like economy, demography and technology.

Among the problems that most educationalists at the moment find important to solve are:

1. Providing the opportunities for and the initiatives to all young people to complete at least upper secondary education
2. Making vocational education more attractive to young people
3. Reducing the detours and mistakes in choice of education and of the time young people spend in the education system
4. Increasing the number of young people going into tertiary education
5. Promoting the inclination to become self-employed
6. Improving the quality of teaching and the output of education

7. Promoting adult education/lifelong learning

Re 1: Providing opportunities for and incentives to all young people to complete upper secondary education

As mentioned earlier this aim has been on the top of the agenda for the last 25 years. The means have changed, however. During the 70s and the 80s much of the effort was spent on increasing the capacity and the geographical coverage of programs on the ordinary system.

Diversification of upper secondary education

Gradually, however, more attention was devoted to the kind of programmes offered. It started in the 80s with special offers for those most at risk of dropping out, like f.i. the Production Schools and the short, practical introduction courses at the schools for semi-skilled workers. It continued in the 90s with the establishment of the social and health education as upper secondary education, the creation of the basic vocational training (EGU) in 1992 and the Open youth education (FUU) in 1994, as well as with a number of new specialities within the vocational education, ranging from repair and maintenance of highly sophisticated technological equipment to janitor functions and cleaning.

Economic measures

Improving the economic situation of the students has been equally in focus for a long time. At a rather early stage the Student Grant Scheme was extended to students in upper secondary education (tuition fees were abolished already in the 50s, and in the 60s the students were given free books).

Economic measures of a different kind is now being applied aimed at discouraging young people from remaining unemployed. Young people under 25 are deprived of their unemployment benefit unless they enroll in an education or training programme.

Youth Guidance

The Youth Guidance system, according to which all young people not in work or education were followed and guided for at least two years, has been widened gradually f.i. by the development of the individual action plans, drawn up for each young unemployed person encouraging him or her to enter education.

Through these measures as well as through guidance in the compulsory school and through general publicity efforts, rather impressive results have been achieved. The Youth Guidance is part of a rather comprehensive guidance system. Unlike in many other countries, most vocational guidance in Denmark takes place at schools, colleges etc. as part of the curriculum. The guidance is mostly carried out by ordinary teachers as part of their teaching load. Many of these teachers have, however, undergone special training and brush-up courses are conducted regularly. The advantage of using teachers as counsellors is that they can easily involve other teachers in the guidance, applying a coordinated pedagogical approach.

The system is, however, at present being criticized. The criticism is mainly concentrated on the qualifications of the counsellors. It is claimed that only full-time counsellors with a specialized education are able to perform the functions in a professional manner and to have a complete overview over the education system and a thorough knowledge of the labour market. Employers claim that the present

guidance is tilted towards the general upper secondary education as this is the pathway the counsellors know best.

It is furthermore argued that the counsellors by being employed in a particular school or college may not be impartial in their advice.

The discussion is far from over and no changes in the present set-up is thus envisaged at the moment.

Drop-out

Rather impressive improvements in the intake rate to upper secondary education has been achieved during the last five to six years. Less impressive are the completion rates. The overall completion rate is now about 85 per cent with considerable differences between the streams. The vocational education stream has a rate of only 65 per cent, if calculated in relation to the total number who begin at a vocational college. If calculated on basis of those who have obtained a training place in an enterprise it is about 90 per cent.

Much research and many surveys have been looking into why 15 per cent of those, who began an upper secondary education left the education system altogether. In a survey among young people conducted in May-June 1996 nearly 50 per cent of the young persons questioned indicated that they had lost interest in the subject or trade they had chosen. About 30 per cent stated that the quality of the teachers was not good enough. Of major importance for the young people was also the social environment in the school.

Rather many who had left the gymnasium mentioned that they found the curriculum too theoretically biased.

For the students who left vocational education within the industry and craft fields about 30 per cent indicated difficulty in finding a training place in an enterprise as the reason, compared to only 11 per cent within the commercial and administrative fields.

These figures have given rise to much concern, in particular when seen in connection with the fact that training places at the schools are available in most trades. Other figures, corroborating that something has to be done in this field are, that only about 1/3 of those eligible for a school training place actually make use of this option. The Ministry of Education has analysed the experiences with the school-based training arrangements. At the moment discussions are taking place on how to improve the situation.

The indication that the social environment in schools is a problem has given rise too to consideration on how to remedy this problem. The problem is most pertinent in the vocational education, as one of the major tasks of the 90s is to make more young people choose vocational training. The Vocational Education Department in the Ministry of Education has therefore been working on the matter for a couple of years. It is however a very complex problem, implicating curriculum design, teacher training and the pedagogy applied as well as school environment and construction.

The problems of modernization of curricula in order to correspond better to young people's way of life is f.i. a very complicated process. It has to be balanced against the labour market's demand of a satisfactory content of subjects pertinent to a still more advanced technology in enterprises.

The problems related to pedagogy and teacher training are even more difficult. The majority of teachers, in particular in the technical colleges was recruited in the 60s and the 70s among skilled workers, technicians, engineers and supervisors. Many of them received only a relatively short pedagogical

training. Although most of them have participated in upgrading courses and gained much experience, it is difficult for many in that group to change radically.

The problem of young people losing interest in the trade or craft they have chosen is an equally serious problem. It is tried solved or at least reduced by several measures. Firstly the new legislation about the compulsory education attach more importance to preparing pupils in the elder classes for their choice of career. One of the ways is by letting the pupil prepare action plans for their future in cooperation with the "class teacher". These plans become more and more specific in their direction towards upper secondary education and the labour market as the pupil progresses through the classes.

Another way of preparing the pupils is the work experience programme according to which pupils can spend one or two weeks in an enterprise. The match between the wishes of the pupils and the supply of enterprises offering these places is, however, often very difficult to establish. To obtain some of the same impression of working life pupils can instead spend a couple of days in a vocational college.

Lately this cooperation between the compulsory school and the vocational colleges has developed into a joint curriculum in the 10th form of the compulsory school. This initiative is called bridgebuilding.

The 10th year on the primary and lower secondary school is voluntary. It was intended to give pupils who are in doubt about their future career time for further considerations. About 60 per cent of the pupils on 9th grade continue, however, in the 10th. The curriculum there is rather flexible and gives ample room for the pupils' choice of subjects. The new legislation about the compulsory school contains adjustments making it easier to combine the curriculum of the 10th year in the school with introduction courses at a vocational college or a combination of the 10th year curriculum and special four week courses introducing an upper secondary education programme.

The bridge building programmes began, at least in a large scale, as recently as in 1996, comprising 5.000 pupils. The preliminary results are promising and further development work and dissemination of experience will take place.

Re 2: Making vocational education more attractive

The ideal situation for policymakers would of course be one where young people made their choice of upper secondary education purely out of an evaluation of their talents and inclinations. Research shows, however, that in the real world Danish young people and their parents choose according to a hierarchy of esteem, listing the academic oriented programmes at the top and vocational training within industry, crafts and social and health education at the bottom. This is not different from the situation in many other countries. It has, however, hitherto been the general opinion that the difference in esteem between vocational education, in particular within crafts, and the academic options were less in Denmark than in most other countries. The new research put a question mark on that opinion.

For rather many years the employers have sought to encourage the young people to choose vocational education rather than general education. Lately, however, part of the industry has begun to look towards graduates from the general gymnasium. Still it is, however, the general aim to increase the proportion of young people seeking vocational education and reducing the proportion going to the general gymnasium.

Many of the measures mentioned above are instrumental in furthering this trend as well: Guidance, modern pedagogy, well furnished schools, adequate provision of training places in enterprises. Two measures are, however, particularly suitable in trying to improve the esteem of vocational education. They

are closely interlinked: Influencing the parents and improving the possibilities of continuing in tertiary education.

The formal criteria for entering tertiary education has been widened in many study fields over the years allowing access to an increasing number of young people from vocational education. However, on average only 15 per cent of those who have completed vocational education continue in a tertiary education compared with about 75% of those from the general gymnasium.

Recently the universities have obtained considerable freedom to draw up specific admission criteria. It is too early to evaluate the impact of this on the pattern of admission. The development is followed closely.

Re 3. Reducing the detours and mistakes in the choice of education and reducing the time spent in education

The number of young people changing from one programme to another, even going back in the upper secondary system is of considerable magnitude involving quite high costs for the society as well as for the young people. Reducing detours and the choosing of new trades and streams is thus of major importance.

Many of the measures mentioned under the two previous headings do contribute as well to making young people's pathway through upper secondary education more direct.

Lately, however, it has been argued that restrictions in the freedom to choose an upper secondary education might reduce the number of changes in particular from the general upper secondary education. The argument against this proposal is that it will either reduce the total number of young people having an upper secondary education or "export" the problem-students to other streams of the system.

Another proposal to reduce the time spent in upper secondary education has been to introduce tests before promotion to a higher grade is granted (today the students in the general gymnasias decide themselves if they want to continue in a higher grade). Some have even proposed to prolong the duration of the general gymnasium to four years. These lines of thinking are under consideration at the moment, the opposition against them widespread.

Re 4. Increasing the number of young people going into tertiary education

The number of students entering tertiary education as well as the number of graduates have been steadily increasing during the last thirty years, and the employment pattern, in particular among graduates from universities, has changed considerably during that period, many more are now employed in the private sector. In most fields the public administration and services are, however, still the dominant employers.

Much attention has therefore over the years been given to attract more students to those fields of study aimed at the private sector, in particular within engineering, mathematics and natural sciences and to develop new shorter programmes, training senior technicians and senior people for commercial and financial trades.

In order to find ways to attract more students to engineering, mathematics and natural sciences the Ministry of Education in 1996 commissioned a number of studies on the reasons for the small number of students choosing these fields of study. A recently published study analyses what make students in HTX and in the mathematical line of the general gymnasium choose their field of study. One of the results of

the analysis is that students choosing technical or natural science studies do so rather early, while social sciences and humanities are the favourites of the all-round oriented students. While the influence of the parents is considerable in the choice of upper secondary education, it is apparently insignificant in the choice of tertiary education. Instead it is the attitudes and personal qualifications which are decisive in the choice.

While the medium cycle studies have a distinct identity, many of them having been in existence for many years (teacher training colleges, engineering colleges, nurse training institutions etc.), they are, however, often taught at rather small institutions offering a degree within one field of study only and thus lacking appeal to a wider group.

The short cycle studies have even greater difficulties in appearing as an attractive option as they are often established as special programmes in a technical or commercial college. For many years this disadvantage for the short cycle programmes has been considered a minor disadvantage compared with the strength that being part of an overall "branchmilieu" gives.

Recently two initiatives have been taken to improve the attraction of the medium and short cycle studies.

One is a proposal presented in parliament in the autumn 1997, reducing the present 80 different programmes to about 40 and giving them a more uniform structure with a duration of two years, leaving room for more teaching f.i. within mathematics, mothertongue and modern technological subjects. The other proposal concerns the organisation of the studies. Two models are put forward for discussion, both implying a reduction in the present number of institutions offering these kinds of programmes:

- One, according to which the various programmes are grouped into centers for programmes within specific fields
- Another placing the medium cycle programmes together with the long cycle programmes, thus creating a number of regional universities, some of them specializing in basic research, others aiming more at serving the business sector. This model does not include the short cycle programmes, but the intention is to improve the credit transfer possibilities, when graduates from short cycle courses enter a medium term or a long term programme.

Re 5. Promoting the inclination to become self-employed

Some countries have succeeded in reducing unemployment by encouraging people to start their own business. In Denmark there has for many years been very little inclination to become self-employed. The general impression has been that people running a small business work harder and earn less than employees. During a number of years the authorities have encouraged people planning to set up their own business by giving economic support for a period. Furthermore, the subject of self-employment has been included in the curriculum at vocational colleges.

In 1995 the parliament requested that the Minister of Education appoint a committee to work out a strategy for the development of ways in which the education system may contribute to an increase in self-employment. In february 1996 the Minister reported about the work of the committee to the parliament.

The committee put forward proposals for a wide range of new initiatives. The proposals are now being studied.

Re 6: Improving the quality of teaching and the output of education

The various initiatives aimed at improving the quality of teaching has in 1997 been supplemented by a new initiative called "Visible quality" the aim of which is to establish a model for comparisons of quality between schools and between programmes. The model described in a report published in November 1997 contains two sections, one in which the objectives are stated and one in which the prerequisites are listed. In the report seven objectives are proposed together with five prerequisites for the education system as such.

The objectives are:

- 1) Ensuring an offer of education to everybody
- 2) Ensuring coherence in the system
- 3) Using resources in an efficient way
- 4) Ensuring a high standard of teaching in the various subjects
- 5) Contributing to the population at large having a high level of education
- 6) Contributing to the development of the Danish society and to economic growth by responding to the demands of the labour market
- 7) Motivating people to lifelong education.

The prerequisites are:

- 1) Qualified teachers
- 2) Qualified and motivated students and pupils
- 3) Room for development
- 4) Suitable premises
- 5) Adequate guidance.

The proposals will now be discussed with the various partners in the education process. On basis of these discussions a final model will be produced.

It has for many years been a priority for governments in Denmark to support general adult education in a rather generous way. It has furthermore for a long time been the aim to increase the level of qualifications in the labour force. Rapid changes in technology and dwindling youth cohorts have made it even more important to promote and to improve adult education and training. Lifelong learning has therefore become an important element in the strategy of the government since 1993, not only as a means to upgrade the qualifications of the workforce but also in the fight against exclusion and marginalization. A system according to which individual action plans are established for each unemployed person has been developed, and guarantees for job offers or offers of training are issued to all persons who have been unemployed for nine months.

For adults in employment it has been a major issue since 1994 to provide opportunities for them to obtain recognized trade qualifications.

The colleges now receive extra funds for teaching adults, and the employers who enter into apprentice contracts with adults (and pay them at least the minimum wage for adults) receive rather generous subsidies. The adult apprentice is favoured by being given credit for experience, skills and prior education.

A continuous development in courses available and in the techniques applied in assisting the unemployed is taking place.

Similarly, developments in the retraining and upgrading are taking place, introducing modern information technology on a major scale and widening the length and the curricula of the courses, allowing space for general subjects as well.

The future

The fiasco of U90 from 1978 put for a long time an end to making all-encompassing long term plans for the development of the education system in Denmark. The reform work of the 80s was, although in some cases comprising large segments of the system, characterized by being piecemeal.

In recent years several major plans have however emerged, some of them illustrating the growing interdependence between education and the rest of public service activities. The more important ones are mentioned below:

Education for All

Among the first of these initiatives was "Education for All" (UTA) from 1994, mentioned earlier in this paper. The measures described here have all been initiated and the implementation is under constant monitoring.

The Information society

A national IT-policy for education and training has been elaborated. The policy was presented to the parliament in 1997 comprising five areas of action:

- Basic skills
- Responsibilities of leadership
- Teaching and learning
- The electronic infrastructure
- Teaching materials.

In 1997 the Ministry of Education asked two international experts to carry out an evaluation of the progress made in the use of IT on education. The report was published in February this year.

Denmark as a Leading Country

The intensive discussion about the performance and the costs of education in Denmark led in 1997 the government to launch an initiative called "Denmark as a Leading Country". Education and research are important elements in this drive.

As part of this initiative the government in November 1997 published a report, "Education - Costs and Achievements". In this report the government outlines the targets for the education system during the next ten years.

- The Danish education system must be among the 5 to 10 best systems in the world, in quality as well as in efficiency

- As many as possible should have an education and training giving a formal vocational competence
- 90-95 per cent of a youth cohort should as a minimum complete an upper secondary education
- 50 per cent of a youth cohort should complete tertiary education.

The objectives are specified in the publication and priority targets are identified, like f.i. increasing the success-rate in the upper secondary as well as in tertiary education and lowering the graduation age.

The report furthermore underlines the importance of maintaining a balance between having an education system varied enough to satisfy the demands of the labour market and the young people and creating transparency in order to make it possible for young people and their parents to make a good choice of career.

It also stresses the precarious balance between a geographical distribution of education and the need to have a certain volume to maintain quality.

Costs and benefits of education are analysed from the viewpoint of the individual as well as of the society. The report also makes comparisons of the level of costs on Danish education with that in other countries.

Finally the report deals with the quality of Danish education seen in an international context. The various Danish initiatives in that respect are listed and means to improve aspects like quality, management, evaluation and feedback, guidance and student grants are discussed.

Development of national competences

The targets listed in "Denmark as a Leading Country" are used as a starting point in a paper published in the autumn 1997 by the Ministry of Education about the development of new competences corresponding to the continuous changes in markets and in products in the private sector.

The shift in emphasis from skills to personal qualifications is stressed as one of the major factors in restructuring curricula and syllabi. On basis of analysis of data from the last ten years the paper predicts that the private sector will need people with much higher, and much less specialized, qualifications.

This development requires according to the paper a fundamental change in the didactics, the teachers functioning as advisors for students, having the responsibility for their education. The teaching thus becomes much more individualized, based on the strength and weakness of the individual student in a lifelong sequence.

The Ministry of Education has recently launched an action plan for implementing these ideas called "Education and the Private Sector". The plan falls in three main categories:

- Changes and improvements in qualifications
- Lifelong learning in order to update skills and qualifications
- Cooperation with enterprises.

It outlines nine objectives to be reached by year 2002:

1. Nearly every young person is expected to complete an education giving competence
2. self-employment should be encouraged in all educational programmes

3. all educational programmes must be designed bearing the growing internationalization in mind
4. IT has to be used in all educational programmes
5. lifelong learning should be part of everybody's life, opportunities being available matching the needs for further education. (The government will attach special importance to measures aimed at encouraging those with a short initial education to seek further education)
6. each individual should be able to design his or her education and training
7. the social partners should participate in the development of the education system
8. practical training should be part of nearly all educational programmes
9. education and training must contribute to the modernization in the private sector.

In order to improve the relations between the enterprises and the education sector the Ministry of Education is now, in cooperation with the Ministry of Research and a number of employers organisations, publishing a catalogue aimed at schools, colleges, universities and enterprises, listing ideas on how to proceed in improving contacts between the private sector and education. The initiatives described in the catalogue cover a wide field, ranging from how to give students and pupils a better knowledge of enterprises to initiatives aimed at improving teacher qualifications and their knowledge of the private sector, to facilitating cooperation between enterprises and researchers.

Quality in the education system

A high level committee is at the moment looking into the quality problem, discussing with the various partners in education objectives and prerequisites and the way to measure quality.

When a final decision on objectives and prerequisites is taken indicators for measurement will be developed and decisions on how often the indicators should be produced and the results disseminated taken. At the moment it is the plan to publish a yearbook on quality.

Reforms on the way

The reform of the compulsory education from 1993 is now being implemented. Many educationalists believe, however, that it might also be necessary to consider fundamental changes in the upper secondary education system, either as part of a general overall reform or as a reform of one or more streams.

The Ministry of Education published late in 1997 a paper which outlines five models for a possible overall structural reform of upper secondary education.

Model 1 suggests the establishment of a comprehensive general upper secondary education. In this model the vocational training takes place, when upper secondary education is completed.

Model 2 is radically different from model 1. It operates with a strengthening of the role of the general gymnasium as preparing for higher education and research.

Model 3 aims at attracting more students to vocational training by grouping the programmes in two: those with dominantly practical subjects and those which requires rather much theoretical knowledge. The number of programmes within industry and crafts is reduced and the scope of the remaining widened.

Model 4 operates, like model 1, with a general upper secondary education comprising a growing proportion of the young people. It suggests, however, improvements in switching to other options.

Model 5 comprises a system where the possibilities of choosing subjects is considerably improved, enabling the students to design their own programme.

Independently of these overall considerations a reform of the structure of the vocational education system is now being considered as a result of the discussions and analysis going on since 1994 (chapter 4).

The Ministry of Education has recently (June 1998) presented a plan for a thorough reform.

The *raison d'être* for proposing a reform only seven years since the latest reform is that the attractiveness of the vocational education is still too low and the drop-out rate too high in spite of all the measures introduced during the 90s. This is particularly worrisome as the number of young people is decreasing, causing fear of lack of qualified manpower.

The solution is according to the Ministry – and the social partners – to construct a system which is more simple and transparent,

- is flexible enough to accommodate students with varying qualifications and demands,
- is giving access to further education,
- is able to develop the personal qualifications of the students and
- is close coordinated with further training of adults.

The plan propose a new structure consisting of two parts, a basic programme with four to seven streams lasting six to eighteen months depending upon the students' level of knowledge, their abilities and the choice of subjects the students make, and a second part in principle of the same structure of the present dual system.

In the basic part each student draws up a plan together with a tutor. The plan will consist of a number of obligatory core subjects, subjects aiming at a trade family, speciality subjects and a number of optional subjects.

The teaching will thus have to be rather individualized and the structure of the curricula being modular. Much time will have to be devoted to counselling and guidance. By the end of the basic education the student will have to pass tests.

The general principle is that those who have passed the tests after the basic education are entitled to continue in the second part of the education. For a small number of trades (approx. 10) admission restrictions will be allowed .

Second part of the education is structured as a dual system, demanding a contract between the student and an enterprise or participation in the school-practice scheme. The curriculum will have the same subject structure as in the basic course and include opportunities for choosing subjects that give access to tertiary education. Some of that education will take part after completion of the vocational education programme in a single subject structure and may last twelve to eighteen months.

The number of branch specialities in the education will, according to the plan, be reduced drastically from the present 192. Instead the plan operates with a close cooperation or even an integration between the

speciality education in the initial education and similar courses within the adult education and training run by the Ministry of Labour. It is proposed to establish a catalogue of courses in branch specialities from which the student and the enterprise can choose.

The cohesion between the school periods and the training periods in enterprises will be further strengthened. By the end of the programme the students will have to pass a test along the lines in present journeyman's test.

For young people with a weak academic background or having a social background making them particularly vulnerable the plan operates with a number of measures like boarding school arrangements, special education for immigrants and decendants of immigrants, and opportunities for obtaining a certificate for those who are only pursuing a relatively short education. It is planned that bridges will be built between some of the main streams in the technical sector and the administrative and commercial stream.

No changes are foreseen in the division of powers between the social partners, the state and the schools.